

Release Highlights

R21 AMR

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IPayments



| Payments

Payment Initiation » Payment Capture Based on Instructed Amount

Available from: **202005**

Payment Order (PO) application allows the user to initiate a payment with the payment amount and currency. This functionality is now enhanced to allow the payment capture with the instructed amount and currency. These values help the PO application to calculate the debit, credit, and payment amount automatically based on instructed amount, instructed currency and payment currency.

Payment Initiation » Funds Reservation in Payment Order

Available from: **202005**

Payment Order (PO) application can currently reserve the funds once the supervisor authorises the payment order. This functionality is now enhanced to perform the authorisation immediately after the user captures and submits the order.

Clearing Directory » Clearing Directory Upload and Reachability Check

Available from: **202005**

Temenos Payments performs reachability check against the respective clearing directory before releasing the payments to clearing. The application is now enhanced to support clearing directory upload and reachability check for the following clearing:



- HKFPS
- BECS
- SYGMA
- SYSTAC

Hong Kong » Hong Kong Faster Payment System

Available from: **202005**

A new feature is introduced in Temenos Payments to support instant credit transfers through Hong Kong Faster payments.

Temenos Payments » Supporting Customer Initiated Cancellation Request through camt.055

Available from: **202005**

Temenos Payments is now enhanced to receive camt.055 (camt.055.001.01) message to cancel pain.001 file or entire pain.001 file (a specific bulk or transaction in the file) and send positive or negative camt.029 (camt.029.001.03) message as a response to camt.055 message.

Africa » SYSTAC Clearing for Credit Transfers

Available from: **202005**

SYSTAC is a net, secure, and automated clearing that processes large volume of non-emergency credit transactions with a unit amount of less than XAF 100 million. A new feature is introduced in Temenos Payments to support the processing of credit transfers by using certain SYSTAC clearing functions.



Africa » SYSTAC Clearing for Direct Debits

Available from: **202005**

SYSTAC is a net, secure, and automated clearing that processes large volume of non-emergency debit transactions with a unit amount of less than XAF 100 million. A new feature is introduced in Temenos Payments to support the processing of Direct Debit (DD) by using certain SYSTAC clearing functions.

Europe » Retail Payment System German Cheque Clearing

Available from: **202005**

A new feature is introduced in Temenos Payments to support the processing of outward cheque collection request and inward cheque clearing request for Retail Payment System (RPS) German cheque clearing. This service processes the cheque payments denominated in Euros between German domestic credit institutions.

Europe » Supporting Hungary InterGIRO2 (IG2) Clearing

Available from: **202005**

IG2 is a secure and automated clearing that processes large volume of non-emergency credit transactions in Hungary. Temenos Payments now supports the processing of Credit Transfer (CT) through IG2 by using certain functions.

Africa » SYSTAC Clearing for Cheque Payments

Available from: **202006**

A new feature is introduced in Temenos Payment Hub (TPH) to handle Initiating



of Outward Cheque Collection and Receiving of Inward Cheque Clearing Transaction.

Europe » Temenos Payments Hub Supports VIBER Clearing

Available from: **202006**

A new feature is introduced in Temenos Payments Hub (TPH) to support the processing of outward and inward credit transfers and returns for VIBER clearing.

Clearing Directory » Reachability Check Using IG2 or VIBER Clearing Directory

Available from: **202006**

This enhancement now supports reachability check for IG2 and VIBER payment, which helps the bank to validate the reachability of counterparty bank through a specific clearing.

Clearing Directory » Reachability Check Using RPSSCL Clearing Directory

Available from: **202006**

This enhancement now supports clearing directory upload and reachability check for RPSSCL clearing. It helps in validating the reachability of a counterparty bank through a specific clearing.

Click [here](#) to understand the installation and configuration updates for this enhancement.



Temenos Payments » Supports Account Switching

Available from: **202007**

This functionality is introduced to automatically redirect the payment to the new account while processing inward payment or book payment. However, this functionality is applicable only when Temenos Payments is implemented with Temenos Transact in embedded mode.

Temenos Payments » Status Update from External System

Available from: **202007**

A new functionality is introduced to update Temenos Payments when the external system completes the file generation.

Click [here](#) to understand the technical impact of this enhancement for customisation and upgrades.

Temenos Payments » Retry Rules for Funds Reservation

Available from: **202007**

The Funds Reservation feature is now enhanced with an option that allows project implementation to hook Application Program Interfaces (APIs), which can evaluate customer criteria to invoke the custom automatic retry rules.

Click [here](#) to understand the technical impact of this enhancement for customisation and upgrades.



Temenos Payments » Configuring the Rounding Method

Available from: **202008**

Temenos Payments can configure a common fractional digit (number of decimals) for transactions, charges and taxes. This functionality is enhanced for the bank users to configure different fractional digits for transaction and charge amount.

Temenos Payments » Update the Status of Charge Claims

Available from: **202008**

Temenos Payments is capable of generating these charge claims (automatically) by using the MT191 message during Close of Business (COB). This feature is now enhanced to allow bank users to view these claims using the 'Enquiry to Action on Unpaid Claims' and manually update its status.

Sri Lanka » Sri Lanka CITS Clearing

Available from: **202008**

This feature is introduced in Temenos Payments to support the processing of LankaClear Cheque Imaging and Truncation System (CITS) clearing.

Temenos Payments » Wire Transfer Regulation 2 (WTR2) Regulation

Available from: **202008**

Temenos Payments is enhanced to support Wire Transfer Regulation 2 (WTR2) regulation and the latest Financial Action Task Force (FATF) recommendation 16.



Temenos Payments » Customising the Rules Using API Exit

Available from: **202008**

Temenos Payments is enhanced to pass transaction codes to ledger, based on an API exit. This can be developed by project level implementations, which are built with logic to use any combination of the payment characteristics.

Click [here](#) to understand the technical impact of this enhancement for customisation and upgrades.

Sri Lanka » Sri Lanka Interbank Payment System (SLIPS)

Available from: **202008**

The SLIPS feature is introduced in Temenos Payments to support Sri Lanka domestic electronic payment system, which allows batch processing of payments.

United Arab Emirates » Saudi Arabian Riyal Interbank Express (SARIE) Payments

Available from: **202008**

This feature is introduced in Temenos Payments to support SARIE, which is the Real Time Gross Settlement (RTGS) payment system of Kingdom of Saudi Arabia.

Sri Lanka » CEFTS Instant CT Payments

Available from: **202009**

A new feature is introduced in Temenos Payments to support Common



Electronic Fund Transfer Switch (CEFTS) for instant Credit Transfer (CT) payments.

Europe » Extended Remittance Information (ERI)

Available from: **202009**

Temenos Payments supports SEPA Credit Transfer (CT) clearing and ERI for customer initiation messages (pain.001).

Europe » Mediante Avviso (MAV) Clearing for Italy

Available from: **202009**

A new feature is introduced in Temenos Payments to support Mediante Avviso (MAV) clearing for Italy. It is a low-value, legacy paper-based Credit Transfer (CT), which a creditor bank issues to a creditor to collect payments from the debtor.

Temenos Payments » Supports Standing Settlement Instruction (SSI)

Available from: **202009**

Temenos Payments is enhanced to upload the Standard Settlement Instruction (SSI) file (automatically) published by SWIFT to store the currency correspondent data and upload SSI feature configured at file upload level.

Debit Collection Initiation/Temenos Payments » Instant Direct Debits (DD)

Available from: **202009**

Temenos Payments is enhanced to support instant DD payments, which



includes accepting and processing instant DD requests initiated from different channels, and send outbound instant DD messages to clearing.

Temenos Payments » Returning Cleared Cheques

Available from: **202009**

Temenos Payments is enhanced to return cleared cheques from 'Return Inward Cleared Cheques' enquiry.

Temenos Payments » Time Out Action and Reversal Request for Instant Payments

Available from: **202009**

Temenos Payments is enhanced to support configuration of the timeout actions for an outward instant Credit Transfer (CT) or Direct Debit (DD) Payment.

Sri Lanka » CEFTS Instant DD Payments

Available from: **202009**

A new feature is introduced in Temenos Payments to support Common Electronic Fund Transfer Switch (CEFTS) for instant Direct Debit (DD) payments.

Temenos Payments » File Level Net Settlement Booking

Available from: **202009**

Temenos Payments is enhanced to support File Level Net Settlement Booking across multiple transaction types, which are bulked together in a file sent to clearing.



Payment Initiation » Recalling a Previously Confirmed Payment

Available from: **202010**

The Recalls and Cancellations feature is introduced in Payment Initiation (PI) module, which enables Payment Order (PO) application to:

- Initiate a recall request based on the eligible payment orders
- View the list of payment orders for which recall has been sent
- Record the latest status of recall

Clearing Directory » Clearing Directory Upload and Reachability Check for TIPS Clearing

Available from: **202010**

The Target Instant Payment Settlement (TIPS) feature is enhanced to support clearing directory upload and reachability check for TIPS clearing, which helps to validate the reachability of a counterparty bank.

Payment Initiation » API for Bulk Payments Enquiries and Versions

Available from: **202010**

The Bulk Master (FTBM) module supports processing of bulk payments. New Application Programming Interfaces (APIs) are introduced for the front-end channel of the bank to perform search, amend, cancel, submit, authorise, or reject operations on bulk records.



Argentina » Capturing Recurrence and Benefit Details

Available from: **202010**

Temenos Payments Hub (TPH) is enhanced to:

- Capture 'Recurrence', 'Benefit' and 'Recurrence ID' while initiating DEBIN (Immediate Debit) order
- Query DEBIN orders and registered recurrences based on 'Recurrence' and 'Benefit'

Europe » SEPA Rule Book Changes

Available from: **202010**

Temenos Payment Hub (TPH) is enhanced to send and receive instant payments up to EUR 100,000 through EBA Instant Clearing and Equens Worldline Clearing and Settlement Mechanism.

Europe » Request for Status Update (pacs.028)



Available from: **202010**

Temenos Payments Hub (TPH) is enhanced to support the following from the Instant Payment Cancellation enquiry for Target Instant Payment Settlement (TIPS) clearing:

- Initiating requests for status update (pacs.028) for an already sent recall request (camt.056)
- Receiving, processing, and viewing requests for status update (pacs.028) received for the recall request (camt.056)



Temenos Payments » Cut-Off Time for Inward and Book Payments

Available from: **202010**

A new routing product 'CORE_IMPCO' is introduced in Temenos Payments, which is applicable for all inward and book payments. Similar to outward payments, it allows to define the routing product in product determination configuration.

Europe » Migration from SWIFT MT to ISO20022 MX Message Standard

Available from: **202010**

Temenos Payments Hub (TPH) is enhanced to support the processing of following TARGET2 messages in ISO20022 format:

- pacs.008.001.08 (customer credit transfer)
- pacs.009.001.08 (bank transfer)
- pacs.004.001.09 (payment return)
- pacs.002.001.10 (payment status report)
- admi.007.001.01 (receipt acknowledgement)
- camt.056.001.08 (payment order recall)
- camt.029.001.09 (resolution of investigation)
- camt.025.001.05 (receipt)

Click [here](#) to understand the technical impact of this enhancement for customisation and upgrades.

Europe » Equens SEPA Direct Debit

Available from: **202010**

Temenos Payments Hub (TPH) is enhanced to support the processing of Single



Euro Payments Area (SEPA) Direct Debit (DD) CORE scheme for Equens clearing, which includes:

- Interbank messages
 - pacs.003.001.02 (direct debit collection)
 - pacs.004.001.02 (direct debit return or refund)
 - pacs.002.001.03 (direct debit rejects)
 - pacs.002.001.03 (direct debit clearing status report)
 - pacs.007.001.02 (direct debit reversal for incoming only)
 - camt.056.001.02 (direct debit cancellation for incoming only)
- Reachability check for DD payments

Europe » Equens SEPA Credit Transfer

Available from: **202010**

Temenos Payments Hub (TPH) is enhanced to support the processing of Single Euro Payments Area (SEPA) Credit Transfer (CT) scheme for Equens clearing. This includes the following interbank messages:

- pacs.008.001.02 (customer credit transfer)
- pacs.004.001.02 (return of credit transfer)
- camt.056.001.01 (payment cancellation request or request for recall)
- camt.029.001.03 (resolution of investigation)
- pacs.028.001.01 (payment status request)
- pacs.002.001.03 (clearing payment status report)
- camt.087.001.05 (request to modify payment)
- camt.027.001.06 (claim non-receipt)
- camt.029.001.08 (resolution of investigation for camt.027 or camt.087)

Africa » Credit Transfer Clearing for Tunisia

Available from: **202010**

Temenos Payments Hub (TPH) supports SIBTEL (Tunisia Clearing) to process incoming and outgoing Credit Transfers (CT), return of CT denominated in Tunisian Dinar (TND), and incoming clearing reports between domestic credit



institutions.

Africa » Direct Debit Clearing for Tunisia

Available from: **202010**

Temenos Payments Hub (TPH) is enhanced to support secured and automated SIBTEL (Tunisia Clearing) for Direct Debit (DD) processing.

Temenos Payments/Payment Initiation » Investigation on a Recall

Available from: **202011**

Temenos Payments is enhanced to allow users to:

- Initiate an investigation message for an unanswered recall request using the Payment Order reference of the original payment
- Get notifications when an incoming investigation request is received for an unanswered recall request

Payment Initiation » Notifications for Special Events

Available from: **202011**

The *Special Event Name* (multi-value) field is introduced in

`PAYMENT . ORDER . PARAMETER` table of Temenos Payments Hub (TPH).

This enables the bank users to select key events for which they need to receive notifications and disregard the others. This benefits in increasing the operational efficiency of the bank.



Africa » Processing Resubmitted Outward and Inward DD Collections

Available from: **202011**

Temenos Payment Hub (TPH) is enhanced to support the processing of resubmitted outward and inward Direct Debit (DD) collections for Système de Télécompensation en Afrique Centrale (SYSTAC) clearing.

Europe » Splitting SIC Message above 100 Million

Available from: **202011**

The Swiss Interbank Clearing (SIC) is enhanced to split SIC messages into multiple messages of 100 million CHF each (when it is above 100 million CHF). It supports and handles the following:

- Payment types (pacs.008, pacs.009, camt.056)
- Incoming R-messages requests (camt.056, camt.029, pacs.002 and pacs.004)

Payments Initiation/Europe » Time Indication Code

Available from: **202011**

Temenos Payment Hub (TPH) allows user to enter time indication code along with its time value for outbound transactions when initiating a payment from the Order Entry (OE) page. This is enhanced to capture and validate the time indication code and corresponding text during payment initiation from Payment Order (PO) application.

Click [here](#) to understand the technical impact of this enhancement for



customisation and upgrades.

Click [here](#) to understand the installation and configuration updates for this enhancement.

Payment Initiation/Temenos Payments »

Payment Execution Time

Available from: **202011**

Temenos Payments Hub (TPH) is enhanced to:

- Capture the payment execution time during payment initiation from Payment Order (PO) application
- Warehouse the payment order to be released at the provided execution time for processing

Europe » Equens SEPA Direct Debit (DD)

Available from: **202011**

The clearing framework of Temenos Payment Hub (TPH) supports multiple payment clearings across different countries. The Equens Single Euro Payments Area (SEPA) Direct Debit (DD) Core scheme is enhanced to support the following messages:

- camt.056 (outgoing DD cancellation)
- pacs.007 (reversal of processed DD)

Africa » Processing Cheques for Tunisia

Clearing

Available from: **202011**

Temenos Payments Hub (TPH) is enhanced to support processing of cheques transactions for SIBTEL (secured and automated clearing house of Tunisia):



- Outward cheque collection request (both presentation and representation)
- Inward cheque file (both presentation and representation)
- Inward rejects for original collection request
- Outward rejects for inward cheques request

Temenos Payments/Payment Initiation » Initiating Pre-Approved Payments

Available from: **202012**

Payment Order (PO) and Temenos Payment Hub (TPH) are enhanced to:

- Skip balance check and funds reservation for pre-approved payments during payment processing
- Allow users to enter the reservation key during payment initiation

Payment Initiation » Generating Customer Status Report (pain.002)

Available from: **202012**

Payment Order (PO) application is enhanced to generate Customer Status Report (pain.002) messages for final and interim statuses of the payment transactions by using the same delivery framework. This benefits the bank to act immediately on rejected transactions.

Temenos Payments » Pre-Determined FX Payments

Available from: **202012**

When a user initiates a cross currency payment, the system fetches the Foreign Exchange (FX) rates maintained in Temenos Payments and uses it for payment processing. This feature is enhanced to enable users to initiate cross currency payments without actively maintaining or refreshing the FX rates in Temenos Payments.



Europe » Supports pacs.009 Cover for SIC Clearing

Available from: **202012**

Temenos Payments Hub (TPH) is enhanced to:

- Receive and process a cover payment from Swiss Interbank Clearing (SIC) in pacs.009 Cover format.
- Generate a cover payment in pacs.009 Cover format to send it through SIC clearing for an underlying customer transfer.

Temenos Payments » Supports Name Validation

Available from: **202012**

Temenos Payments is enhanced to perform name validation on incoming transactions by matching the beneficiary's name of the given account number with the existing details in the system. This is applicable for all payments processed by banks that:

- Are located in European Economic area (EEA) and non-EEA
- Abide to Wire Transfer Regulation 2 (WTR2) and Financial Action Task Force (FATF) recommendation 16

Click [here](#) to understand the installation and configuration updates for this enhancement.

Europe » Nordic Credit Transfer Payments

Available from: **202012**

The Nordic Credit Transfer (NCT) is a new clearing added to the existing clearing framework. It is a payment instrument used for transferring funds between two payment accounts held by banks located within the Nordic



countries.

Europe » SIC Rulebook Change

Available from: **202012**

Temenos Payments Hub (TPH) is enhanced to support processing of camt.025 messages as part of Swiss Interbank Clearing (SIC) clearing and reception of camt.025 with ACCP and RJCT status.

Saudi Arabia » Saudi Arabia Instant Payments System (SAIPS)

Available from: **202012**

SAIPS is an instant payment system of Kingdom of Saudi Arabia. Temenos Payments Hub (TPH) supports the following features for SAIPS:

- Initiating instant transfer and generating pacs.008
- Processing inward pacs.008 and generating pacs.002 in response
- Processing inward pacs.002 received and generating repeat pacs.008
- Handling camt.056 (time-out cancellation message) received from the clearing

Payment Initiation » Emitting Customer Credit Transfer Initiation Message

Available from: **202101**

Payment Order (PO) application is enhanced to generate Customer Credit Transfer (CT) Initiation message (pain.001.001.05) from PO application to back-office processing systems (Temenos Payments Hub) or other external payment systems.



Temenos Payments » Standalone Mode for Party and Arrangement Micro Service

Available from: **202101**

Temenos Payments is enhanced to validate account details (in standalone mode) that are available in Temenos micro services. This allows to validate debit and credit account details associated with a payment through Master Data Access Layer (MDAL).

Payments Initiation » Transparency Check in Standalone Mode

Available from: **202101**

Payment Order (PO) application is enhanced to perform transparency check in standalone mode when the associated payment system is Temenos Payments Hub (TPH). When the payment is initiated from channels, it invokes the transparency check API (exposed from Transact) to perform the transparency check and return the transparency data to the channels.

Europe » Nordic Instant Credit Transfer

Available from: **202101**

The Nordic Payments Council (NPC) manages the Nordic payment schemes that facilitate payments within the Nordic countries. Nordic Credit Transfer (NCT) instant is a new clearing developed by using the existing instant CT clearing framework of Temenos Payments Hub (TPH). It supports the following ISO 20022 messages in NCT payment processing:

Interbank Messages

- pacs.008 (Payment request for credit transfer)
- pacs.002 (Payment response, also known as payment status report)
- pacs.004 (Payment return)
- camt.056 (Payment cancellation request)



- camt.029 (Negative response to an inward cancellation request)
- camt.027 (Claim of non-receipt)
- camt.087 (Claim for value date correction)
- camt.029 (Response to inquiry messages)
- pacs.028 (Request for status update)

Bank-to-Customer or Customer-to-Bank Messages

- pain.001.001.03 (Payment initiation of credit transfer instruction)

Temenos Payments » Processing Payments with Negative Customer Spread

Available from: **202102**

This feature is now enhanced to accept negative values as customer spread, which is applied on the treasury rate for calculating the customer exchange rate and booking calculated market exchange loss. This enables the bank users to configure the feature for calculating market exchange loss.

Temenos Payments » Amendments to E-mandates

Available from: **202102**

Temenos Transact can be configured to amend mandate details at clearing level (for incoming Direct Debit- DD) and source level (for book DD collection), when DD is booked or completed for normal mandates.

Temenos Payments/ Payment Initiation » Display and Reserve Charges

Available from: **202102**

Temenos Payments is enhanced to calculate the account activity-related charges for the user and also reserve it along with the same charges.



Europe » Supporting EUROSIC in TPH

Available from: **202102**

Temenos Payments Hub (TPH) is enhanced to perform the EUROSIC clearing. It is a Real-Time Gross Settlement (RTGS) payment system that settles euro payments through the accounts of Swiss Euro Clearing Bank (SECB) between participants.

Debin » Debin Archival

Available from: **202102**

The functionality allows banks to archive the payments after the retention period.

Australia » BECS – Direct Entry Payments » Outward File Generation

Available from: **202103**

This functionality allows banks to manage direct debits for BECS clearing.

Temenos Payments support the following features of direct debit processing:

- Outward direct debit collection request processing
- Inward direct debits return processing
- Outward return of refusal processing

Argentina » DEBIN (Immediate Debit) » MismoTitular for Incoming Domestic Credit Transfers

Available from: **202103**

This functionality allows banks to support payments from Argentina local transfer clearing. Temenos Payment Hub (TPH) is enhanced to support sending and receiving local domestic transfers from COELSA (Clearing House in Argentina).



Argentina » DEBIN (Immediate Debit) » Incoming Reversal Processing (Accept or Reject) for Incoming Collection DD

Available from: **202103**

This functionality allows banks to reject direct debit reversal requests from Argentina Clearing (COELSA) for already processed incoming direct debit requests.

Argentina » DEBIN (Immediate Debit) » Acceptance of the Rejection Message from Clearing for Inward DD Rejection

Available from: **202103**

This functionality allows banks to receive and accept reversal messages from Clearing for an Inward DD collection sent by TPH to Clearing.

Payments » Request to Pay (RTP) Framework

Available from: **202103**

Request to Pay (RTP) is an independent messaging mechanism in Temenos payments allowing the requester to request and collect payment in real time for the delivery of product or service from the payer.

Temenos Payments » Viewing Cancellations, Queries, and Answers for SWIFT Payments

Available from: **202103**

In this enhancement, Temenos Payments allows the user to view historic cancellations, queries, answers, and free format messages sent or received for a



SWIFT payment.

Europe » Forwarding Direct Debit Requests to Indirect Participants

Available from: **202103**

Temenos Payments is enhanced to receive the SEPA Direct Debit Requests (pacs.003) from clearing and forward it to Indirect Participants (IP) when the customer is not available in books of BIL/SAMLINK.

Click [here](#) to understand the technical impact of this enhancement for customisation and upgrades.

Temenos Payments » Support of Multi-currency Accounts

Available from: **202103**

Temenos Payments is now enhanced to accept multi-currency accounts for both incoming and outgoing payments.

Argentina » DEBIN (Immediate Debit) » Recurrence Id

Available from: **202104**

This functionality allows the Temenos Payments Hub system to capture the COELSA Recurrence Id while initiating debin orders.

Canada » Interac Instant Payment Clearing

Available from: **202104**

This functionality allows banks, using the Interac instant payments in ISO8583



format, to accept, process and respond to the ISO20022 messages sent from Interac via the Canada Clearing Email Money Transfer (C1 EMT).

Canada » Account Number Validation

Available from: **202104**

This functionality allows banks to derive the Temenos Transact account number from the payment message received from Interac. As Interac sends the account number in different format, the same will be converted into the Temenos Transact account for posting into Temenos Transact.

Temenos Payments » Cancellation of Payments after Distributing to Clearing

Available from: **202104**

Temenos Payments is enhanced to send cancellation request for the settled transaction for both Credit Transfer, Direct Debit and Cheque collection which includes return of original transactions. This helps in settling the customer without any hassle.

Currency Cut-off Check and PSD2 Compliancy Check in POA

Available from: **202104**

Temenos Payment Order is now enhanced with the ability to perform:

- Currency cut-off check
- PSD compliancy check



Temenos Payments » Changes in Temenos Payments to communicate with external Temenos Transact

Available from: **202104**

Temenos Payments Standalone feature has the ability to configure if the charging rule definitions can be maintained in either Temenos Payments or external Transact or both systems. If charging rules definitions are maintained in external Transact, Temenos Payments fetches the charges from Transact.

Temenos Transact can also configure the accounting restrictions can be maintained in Temenos Payments or in external Transact. If account restrictions are maintained in external Transact, Temenos Payments fetches the restrictions from Transact. Temenos Payments provide 'Out of the box' pre-integration for Temenos Payments (Stand-alone) with Transact versions R21.

Request to Pay » Future Dated Payments from Request to Pay

Available from: **202104**

Request to Pay (RTP) now enables the payer to initiate future dated payments during the acceptance of the received request. RTP allows the payer to select a future date to process the payment initiated from the request. An interim response is generated from the payer RTP system for a future dated payment to notify the requestor of the payer's acceptance.

Temenos Payments » Account Switching Exceptional Handling

Available from: **202104**

Temenos Payments park the transactions in the repair queue that are received from the new bank account of the customer (who moved from Temenos Bank



Accounts). This provides non-STP flow for an inward payment when the payment is received from the new bank account of a customer (who moved out of Temenos Payments bank) to the old bank account of the customer (Temenos Payments bank).

Temenos Payments » Inward Instant Direct Debit Processing

Available from: **202104**

Temenos Payments is enhanced to support the following features for instant Direct Debit (DD) processing:

- Ability to configure whether an inward instant DD must be processed end-to-end or must be parked in an interim status.
- Ability to receive and process an inward clearing confirmation message for an inward instant DD request. It supports both positive and negative clearing confirmation messages.

Click [here](#) to understand the technical impact of this enhancement for customisation and upgrades.

Temenos Payments » Parallel Processing of Restriction Check and AML Processing

Available from: **202104**

Temenos Payments is now enhanced to generate a single AccountCheckFeeInquiryForDebit IF event that combines Fee, Account Restriction and Reserve Fund IF events. Temenos Payments generates the AccountCheckFeeInquiryForDebit IF event instead of the existing Reserve Fund IF event at status 641.



Saudi Arabia » Request to Pay (RTP) in Saudi Arabia Instant Payment System

Available from: **202104**

Temenos Payments support the following features for Saudi Arabia Instant Payment System (SAIPS) – Request to Pay (RTP) (Kingdom of Saudi Arabia clearing):

- Initiating request to pay and generation of pain.013
- Processing of inward pain.013 and allows the recipient to respond to a request to pay
- Generating the response message of the recipient (pacs.002 and pain.014)
- Processing of response message received (pacs.002 and pain.014)

Temenos Payments » Supporting Cross Border Payments using SWIFT CBPR+ Format Messages

Available from: **202104**

Temenos Payments is now enhanced to support processing of SWIFT International Payments using the Cross-Border Payments and Reporting Plus (CBPR+) MX messages in ISO20022 format (in addition to existing MT format messages). The system now has the ability to:

- process SWIFT CBPR+ messages for International Payments
- receive inward SWIFT International Payments using both MT and MX format
- send outward SWIFT International Payments either in MX or MT format
- redirect SWIFT International Payments through Payment Market Infrastructure (PMI) such as TARGET2 and vice versa
- enrich data to support conversion between MT and MX formats



- support upto three intermediary agents and previous instructing agents for CBPR+ payment routing

The `PAYMENT.ORDER (PO)` application is enhanced to support CBPR+ payment capture. New product, menu and versions are provided for CBPR+ Customer and Bank Transfer. The `ORDER.ENTRY (OE)` application is enhanced to support CBPR+ payment capture and repair. New menu and versions are provided to capture, view, and repair ISO20022 format MX payments.

Click [here](#) to understand the technical impact of this enhancement for customisation and upgrades.

Europe » Supporting MX Message Format in TARGET2 RTGS System

Available from: **202104**

TARGET2 ISO20022 solution is now enhanced to support the additional features provided below:

- Redirection of Cross-Border Payments and Reporting Plus CBPR+ payments (pacs.008, pacs.009,pacs.004) through TARGET2 and vice-versa
- Support of structured address information for customers (Debtor/Creditor)
- Code word processing for TARGET2 MX messages
- Support for structured remittance information
- Interfacing with Filtering Solution (FCM)
- Sending TARGET2 MX messages through SWIFT and processing of technical acknowledgements from SWIFT
 - Network acknowledgement from SWIFT (in XMLv2 format)
 - Delivery notification from SWIFT (xsys.010, xsys.011,xsys.012)
- Support for TARGET2 customer payment initiation from client channels using pain.001 v9 and response using pain.002 v10



Click [here](#) to understand the technical impact of this enhancement for customisation and upgrades.

Installation and Configuration Notes



| Payments

Clearing Directory » Reachability Check Using RPSSCL Clearing Directory

Available from: **202006**

A record needs to be configured in `CA.CLEARING.DIRECTORY.PARAM` table with the ID as 'RPSSCL'.

- Set the *Reachability Key* field as National Clearing Code and Payment Channel.
- Configure the *Reachability API* field with the name of the specific reachability API.

Europe » File Upload

Available from: **202010**

`EB.FILE.UPLOAD.TYPE` is pre-configured to upload a file. No new product codes or conversion routines are introduced.

Payments Initiation/Europe » Time Indication Code

Available from: **202011**

A new channel validation routine (`TARGET2Service.channelValidationApi`) is released, which can be attached for TARGET2 clearing in *ValidateApi* field of `PP.CLEARING.SETTING`.



Temenos Payments » Supports Name Validation

Available from: **202012**

The `PP.COMPONENT.API.HOOK` application needs to be configured for hook API name comparison.

| Technical Notes



Payments

Temenos Payments » Status Update from External System

Available from: **202007**

The user needs to enter the below values in an OFS request to change the status from 990 to 999:

Field	Description
Company ID	<Companyid>
FT Number	<Reference number for the payment>
Payment Status	Complete
Reason For Manual Action	UpdateStatusTo999From990
Status Code	990

```

PP.SO.TRANSACTION, //PROCESS//0, INPUTT/123456/GB0010001//////////, B-
NK19107DBGDDKFF, CompanyID: 1: 1 = "BNK", FTNu-
mber-
: 1: 1-
= "BNK19107DBGDDKFF", Pa-
ymentStatus: 1: 1-
= "Co-
mplete", ReasonForManu-
alAction: 1: 1 = "UpdateStatusTo999From990", StatusCode: 1: 1 = "990" Provider API version -
PP.SO.TRANSACTION, PP.API.TRANSACTION.UPDATE.1.0.0.version Input to be passed
: FTnumber.

```



Temenos Payments » Retry Rules for Funds Reservation

Available from: **202007**

The following signatures can be used for the Recycler Lookup API:

Input Parameter	Output Parameter
Payment object	System ID pre-configured in RC.CAPTURE of the Type Character cannot be more than 10 alpha-numeric

Temenos Payments » Customising the Rules Using API Exit

Available from: **202008**

The following signatures can be used for the Transaction Code API:

Input Parameter	Output Parameter
Payment object	Debit book code, Credit book code, Debit charge book code and/or Credit charge book code.

Europe » Migration from SWIFT MT to ISO20022 MX Message Standard

Available from: **202010**

If any local Application Programming Interface (API) or client specific local is available to change or update details in outward Trans-European Automated Real-time Gross Settlement Express Transfer System (TARGET2) MT messages, then it needs to be modified (if required) to update the TARGET2 MX messages. API used to modify or update details in outward MX messages can be attached in *EnrichOutMsgAPI* field of TGT_PP.CLEARING record.

In PAYMENT.ORDER table, drop-down values for the below fields are changed



to list only ISO external codes. These fields are linked to the new `PI.ISO.EXTERNAL.CODE` table. If user wants to list values from an existing link table (along with ISO codes), then configure a record in `F.TPS.INTERNAL.CONFIGS` with ID as `PI.ADD.ISO.CODES`.

Field in <code>PAYMENT.ORDER</code>	Values Listed from Accounting Module (existing feature)	<code>PI.ISO.EXTERNAL.CODE</code> (enhanced feature)
<i>Payment Purpose</i>	<code>PAYMENT.PURPOSE.CODE</code>	PurpCd
<i>Payment Category</i>	<code>PAYMENT.CATEG.PURPOSE</code>	CtgyPurpCd

Field in <code>PAYMENT.ORDER</code>	Values Listed from <code>EB.LOOKUP</code> (existing feature)	<code>PI.ISO.EXTERNAL.CODE</code> (enhanced feature)
<i>Local Instr Code</i>	<code>LOCAL.INSTR.CODE</code>	LclInstrmCd
<i>Pymt Info Ser Level Code</i>	<code>PAYMENT.SERVICE.LEVEL.CODE</code>	SvcLvCd

Payments Initiation/Europe » Time Indication Code

Available from: **202011**

The *Time Indication Code Type* and *Time Indication Code Value* are new fields introduced in `PAYMENT.ORDER` (PO) application, which allows the user to enter the values in *Fromtime*, *Tilltime*, *Clstime*, *Sendtime*, and *Rejecttime* fields. The PO application and channel routine validates the values entered in these fields. The user can modify the value in *Time Indication Code* through Order Entry (OE) for repair transactions.

Europe » Forwarding Direct Debit Requests to Indirect Participants

Available from: **202103**

- The user uses SEPA XSD for receiving the DD payment from clearing which support BIC, whereas NCC related tag is out of scope for this



feature.

- Non-ESB flow is not developed as per the current standards.

Temenos Payments » Inward Instant Direct Debit Processing

Available from: **202104**

The following are the status codes used to park and release the instant DD in int rim status:

- 629 – Waiting - Confirmation message for Instant DD Payment
- 630 – Processing - Received Positive DD instant confirmation from Clearing
- 631 – Processing - Received negative DD instant confirmation from Clearing

Temenos Payments » Supporting Cross Border Payments using SWIFT CBPR+ Format Messages

Available from: **202104**

1. The following are the changes done for some of the fields of the `Order Entry (OE)` application:
 - a. Organization Other identification, Organization Other identification Scheme Code, Organization Other identification Scheme Proprietary, Organization Other identification issuer for Debtor, Creditor, Ultimate Debtor, Ultimate Creditor details are changed from single value fields to multi value fields to capture two occurrences for CBPR+ payments.
 - b. Private Other identification, Private Other identification Scheme code, Private Other identification Scheme Proprietary, Private Other identification issuer for Debtor, Creditor, Ultimate Debtor, Ultimate Creditor details are changed from single value fields to multi value fields to capture two occurrences for CBPR+ payments.



- c. The above values are stored in the `POR.SUPPLEMENTARY.INFO` table with a delimiter of `$$`. Hence, for outward mapping in the XSLT, the values are fetched based on the delimiter `$$`.

Field name in OE	Existing Functionality	New Functionality
Regulatory Reporting fields (structure changes)	All the regulatory reporting fields were grouped together under the <code>REG.DEBTOR.CREDITOR.RPT</code> table	<p>Existing structure is split and added a new field <code>REG.REP.RELATION</code> to connect the two sets.</p> <p>First associated value set:</p> <ul style="list-style-type: none"> • <code>REG.DEBTOR.CREDITOR.RPT</code> • <code>REG.AUTHORITY.NAME</code> • <code>REG.AUTHORITY.CTRY.CODE</code> <p>Second associated value set:</p> <p><code>REG.REP.RELATION</code> – holds the multi-value position of:</p> <ul style="list-style-type: none"> • <code>REG.DEBTOR.CREDITOR.RPT</code> • <code>REG.REP.TYPE</code> • <code>REG.REP.DATE</code> • <code>REG.REP.COUNTRY.CODE</code> • <code>REG.REP.CODE</code> • <code>REG.REP.CCY</code> • <code>REG.REP.AMOUNT</code> • <code>REG.REP.INFORMATION</code>

2. The following are the field level changes done for the fields in the `PO` application.

Field name in PO application	Existing Functionality	New Functionality
<code>INTERMED.BANK.IDENTIFIER</code>	Free text field	Drop down field with values from the <code>ISO.CLEARING.SYSTEM.ID</code> table



Field name in PO application	Existing Functionality	New Functionality
<p><i>PYMT.INFO.SER.LEVEL.CODE</i></p>	<p>Single value field</p>	<p>Multi-value field as CBPR supports multiple occurrence.</p>
<p>Regulatory reporting fields (structure changes)</p>	<p>All the regulatory reporting fields were grouped together under the REG.DEBTOR.CREDITOR.RPT table</p>	<p>Existing structure is split and added a new field (<i>REG.REP.RELATION</i>) to connect the two sets.</p> <p>First associated value set:</p> <ul style="list-style-type: none"> • REG.DEBTOR.CREDITOR.RPT • REG.AUTHORITY.NAME • REG.AUTHORITY.COUNTRY.CODE <p>Second associated value set:</p> <p>REG.REP.RELATION – holds the multi-value position of:</p> <ul style="list-style-type: none"> • REG.DEBTOR.CREDITOR.RPT • REG.REP.TYPE • REG.REP.DATE • REG.REP.COUNTRY.CODE • REG.REP.CODE • REG.REP.CCY • REG.REP.AMOUNT • REG.REP.INFORMATION
<p><i>PARTY.TYPE</i> <i>PARTY.OT.ID.TYPE</i> <i>PARTY.OT.ID</i> <i>PARTY.SCH.CDE</i> <i>PARTY.SCHME.PRTY</i> <i>PARTY.SCH.ISSUR</i></p>	<p>ULTIMATE.CREDITOR.OT.ID.TYPE ULTIMATE.DEBTOR.OT.ID.TYPE ORDERING.OT.ID.TYPE BENEFICIARY.OT.ID.TYPE</p>	<p>New multivalued set of fields added to support multi value occurrence of Other Id Type and related fields of Initiating Party, Ultimate Debtor, Ultimate Creditor, Debtor, Creditor</p> <p>In <i>PARTY.TYPE</i>, following values are available as drop</p>



Field name in PO application	Existing Functionality	New Functionality
		<p>down:</p> <ul style="list-style-type: none"> • Initiating Party • Ultimate Debtor • Ultimate Creditor • Debtor • Creditor <p>In PARTY.OT.ID.TYPE, ORGANISATION and PRIVATE can be given. This can be multi valued under PART.TYPE field</p>

3. As part of Business ack/nack processing, the following changes are done.
 - a. A new field (*OutputChannel*) is added in the PSM.BLOB table to store the channel in which message was sent.
 - b. Changes in RTGS Business Exception Queue
 - i. Exception enquiry select is based on the OutputChannel and status of PSM.BLOB, that is PNDG
 - ii. Actions Ignore and Reject are carried out in the PSM.BLOB table based on the *ClearingUserAction* field instead of PP.SO.TRANSACTION

4. As part of Technical ack/nack processing, the following change is done

Field name in PO application	Existing Functionality	New Functionality
<i>AcknowledgementMessage</i>	Multi-value field	Changed to sub-value to hold the <i>AcknowledgementMessage</i> field of Interface, Network and DLN when received.

5. For all ISO20022 format MX payments (SWIFT CBPR+, TARGET2 and so on, that are migrating to ISO20022 MX format), Extended Fields should be set as 'I'.
 - a. When incoming ISO20022 format payments with extended fields are received in STP, this flag is set as 'I'



- b. When Order Entry ISO Versions are used to capture payments, this field is set as 'I'
- c. When outgoing payment is captured from the `PAYMENT.ORDER` (PO) application using the CBPR+ and TARGET2 MX versions, this field is set as 'I' as part of the version level mapping
- d. When `pain.001 v9` is received and mapped, this field is set as 'I' as part of version level mapping

This field is used to identify the payments as ISO format Payments and accordingly the appropriate ISO versions are opened to view, display, and decide on enrichment for format conversions. When this field is not set as 'I' in the payment object, the system opens the payments in already existing non ISO versions. If a customised version is used in the PO application or Temenos Payments, ensure to map this field appropriately at version level.

Europe » Supporting MX Message Format in TARGET2 RTGS System

Available from: **202104**

1. If any local APIs or L3 routines are there to change/update details in outward T2 MT messages, then those APIs or L3 routines needs to be modified (if required) to update in ISO MX messages. API to modify/update details in Outward MX messages can be attached in the *EnrichOutMsgAPI* field of the TGT PP.CLEARING record
2. In the PO application, the drop-down values for the fields mentioned in the following table are changed to list only ISO External codes. Before these changes, the fields were linked to the `EB.LOOKUP` and `AC` applications to list the drop-down values. Now all are linked to a new table (`PI.ISO.EXTERNAL.CODE`). If the user also wants to list values from existing link table (along with ISO codes), then the user has to configure a record in the `F.TPS.INTERNAL.CONFIGS` table with id as `PI.ADD.ISO.CODES`.



Field name in PO application	Existing -Values were listed from AC module's Application	Current functionality - PI.ISO.EXTERNAL.C ODE
<i>PAYMENT.PURPOSE</i>	PAYMENT.PURPOSE.CODE	PurpCd
<i>PAYMENT.CATEGORY</i>	PAYMENT.CATEG.PURPOSE	CtgyPurpCd
<i>LOCAL.INSTR.CODE</i>	LOCAL.INSTR.CODE	LclInstrmCd
<i>PYMT.INFO.SER.LEVEL.C ODE</i>	PAYMENT.SERVICE.LEVEL.C ODE	SvcLvlCd

3. The following are the changes done for some of the fields of the *Order Entry (OE)* application.

Field name in OE	Existing Functionality	New Functionality
Regulatory Reporting fields (structure changes)	All the regulatory reporting fields were grouped together under the REG.DEBTOR.CREDITOR.RPT	<p>Existing structure is split and added a new field <i>REG.REP.RELATION</i> to connect the two sets.</p> <p>First associated value set:</p> <ul style="list-style-type: none"> • REG.DEBTOR.CREDITOR.RPT • REG.AUTHORITY.NAME • REG.AUTHORITY.CTRY.CODE <p>Second associated value set:</p> <p>REG.REP.RELATION – holds the multi-value position of:</p> <ul style="list-style-type: none"> • REG.DEBTOR.CREDITOR.RPT • REG.REP.TYPE • REG.REP.DATE • REG.REP.COUNTRY.CODE • REG.REP.CODE • REG.REP.CCY • REG.REP.AMOUNT • REG.REP.INFORMATION



4. The following are the field level changes done for the fields in the PO application.

Field name in PO	Existing Functionality	New Functionality
Regulatory Reporting fields (structure changes)	All the regulatory reporting fields were grouped together under the REG.DEBTOR.CREDITOR.RPT	<p>Existing structure is split and added a new field <i>REG.REP.RELATION</i> is added to connect the two sets.</p> <p>First associated value set:</p> <ul style="list-style-type: none"> • REG.DEBTOR.CREDITOR.RPT • REG.AUTHORITY.NAME • REG.AUTHORITY.CTRY.CODE <p>Second associated value set:</p> <p>REG.REP.RELATION - holds the multi-value position of:</p> <ul style="list-style-type: none"> • REG.DEBTOR.CREDITOR.RPT • REG.REP.TYPE • REG.REP.DATE • REG.REP.COUNTRY.CODE • REG.REP.CODE • REG.REP.CCY • REG.REP.AMOUNT • REG.REP.INFORMATION

5. As part of Business ack/nack processing, the following changes are done.
- a. A new field (*OutputChannel*) is added in the PSM.BLOB table to store the channel in which message was sent
 - b. Changes in RTGS Business Exception Queue
 - i. Selecting the exception enquiry is based on the OutputChannel and status of PSM.BLOB, that is PNDG
 - ii. Actions Ignore and Reject are carried out on the PSM.BLOB table based on the *ClearingUserAction* field instead of the PP.SO.TRANSACTION application.



6. For all ISO20022 format MX payments (SWIFT CBPR+, TARGET2 and so on which are migrating to ISO20022 MX format), Extended Fields should be set as 'I'.
 - a. When incoming ISO20022 format payments with extended fields are received in STP, this flag is set as 'I'
 - b. When Order Entry ISO Versions are used to capture payments, this field is set as 'I'
 - c. When outgoing payment is captured from the `PAYMENT.ORDER` (PO) application using the CBPR+ and TARGET2 MX versions, this field is set as 'I' as part of version level mapping
 - d. When pain.001 v9 is received and mapped, this field is set as 'I' as part of version level mapping

This field is used to identify the payments as ISO format Payments and accordingly the appropriate ISO versions are opened to view, display, and decide on enrichment for format conversions. When this field is not set as 'I' in the payment object, the system opens the payments in already existing non-ISO versions. If a customised version is used in the PO application or TPH, ensure to map this field appropriately at version level.

Straight Through Processing of Payments Initiated from Payment Order

Available from: **202104**

Non-instant payments initiated from the `PAYMENT.ORDER` (PO) application to TPH (TPH and Payment Order is in the same instance) are processed straight through until the logical end of the payment without parking the payment at TPH mapping stage (payment status '4'), like processing of instant payments from the PO application.

To enable this feature in embedded TPH (TPH in Transact instance), a record in `TPS.INTERNAL.CONFIGS` is created as shown in the screenshot below.



TPS.INTERNAL.CONFIGS		EMBD.PMT.STP	
Value.1		POA.INIT.PMT	
Curr No		1	
Inputter.1		12351_AUTHORISER_OFS_JRISPA	
Date time.1		22 APR 21 19:44	
Authoriser		12351_INPUTTER_OFS_JRISPA	
Company		GB0010001	Model Bank
Dept Code		1	Implementation

Straight Through Processing of Payments in Standalone TPH

Available from: **202104**

In Standalone TPH instance, payments are processed without stp-flow TSA services (PAYMENT.STPFLOW.HEAVY/MEDIUM/LIGHT) similar to processing of instant payments.

Services are still applicable to process repaired (Payments Repair screen) payments.

Parameter to Distinguish Instant and Non-instant Payment Response from PEMINT

Available from: **202104**

A new parameter table `PEMINT.PARAMETER` is introduced in PEMINT interface module to enable the following features:

- Option to generate a separate integration events for instant and non-instant payment response from the `PEMINT` application, so that instant payments and non-instant payments can be routed to their dedicated queues.
- Option to define an out enrich API to allow clients to include additional information, required for their routing logic or local developments, as part of the response.

Regulatory Compliance



Regulatory Compliance

Consent Management » Consent Validations using Auto Complete

Available from: **202005**

The consent management module helps record and maintain consent under data protection regulations like GDPR. The *Auto Complete* field is introduced in the CDP.CONSENT property to allow banks to configure whether the *Consent Given* values within the consent arrangement should be automatically updated after validation.

IFRS9 Accounting » Updating the Risk Stage for Undrawn Commitments

Available from: **202006**

Configuring the *Risk Stage* in the Consol Key of contracts, is now extended for undrawn commitment contracts such as undrawn Loans and Deposits, Arrangement Architecture, Facility (which is SL commitment), overdraft accounts (both Accounts and Retail Accounts) and Limit.

Customer Data Protection » Rebuilding Customer Activity

Available from: **202006**

This functionality allows the user to rebuild the content for the Customer Activity applications if there is a change to any criteria or configuration that impacts Customer Activity.



Consent Management » Automated Consent Creation

Available from: **202007**

Banks can now create an automated Customer Data Protection (CDP) consent, when on boarding a customer or block an existing consent of an inactive customer in an automated workflow.

Click [here](#) to understand the technical impact of this enhancement for customisation and upgrades.

Customer Data Protection » Erasure of Customer Data at One Time

Available from: **202007**

The erasure functionality is now enhanced to allow a 'Complete' method of erasing data, which allows the bank to erase the customer data at one time. This is dependent on customer and account level criteria.

Customer Data Protection » Erasure Process for Prospect Customers

Available from: **202007**

This functionality enables banks to configure a default retention period for holding prospect customer's data. The retention periods can be based on the prospect's criteria and whether the prospect has made a request for erasure or not.

Click [here](#) to understand the installation and configuration updates for this enhancement.



Obligor Objects » Creation and Maintenance of Obligor Objects

Available from: **202007**

The Obligor Objects (OX) module is designed to support the structural component of the regulatory requirements, of European Banking Association's (EBA) and Banking Commission of Central Africa (COBAC), to provide the basis for assessing the contagion effect on default of one obligor on the other or grouped obligors.

Click [here](#) to understand the technical impact of this enhancement for customisation and upgrades.

Click [here](#) to understand the installation and configuration updates for this enhancement.

Obligor Objects/IFRS Provisioning and Impairment » Identification of Default of Obligor

Available from: **202008**

This functionality provides the logic to identify the default of obligors, which is a pre-requisite in applying the default contagion logic to assess the effect of default of one obligor on other related obligors, by leveraging the existing asset classification logic in the Provisioning module (PV). It also provides an option to use either the PV module to perform the identification of default of obligors or update the default status using an external system.

Click [here](#) to understand the technical impact of this enhancement for customisation and upgrades.

Click [here](#) to understand the installation and configuration updates for this enhancement.



Obligor Objects » Default Contagion

Available from: **202008**

The Default Contagion functionality offers to assess the contagion effect of the default of an obligor on other related or grouped obligors.

Click [here](#) to understand the installation and configuration updates for this enhancement.

IFRS9 Financial Instruments » Multi-GAAP Provisioning

Available from: **202008**

This functionality supports Multi-GAAP provisioning for a financial asset under both IFRS and Standard provisioning parallelly. This allows a contract to be subject to more than one type of provisioning method based on different GAAPs.

IFRS9 Accounting » ECL Calculations under Different PiT PD Options

Available from: **202009**

IFRS processing supports the Expected Credit Loss (ECL) calculations depending on the type of Probability of Default (PD) that is received.

IFRS9 Accounting » Modification and Derecognition of Loans

Available from: **202009**

This functionality supports modification and derecognition accounting according to IFRS guidelines. This allows banks to comply with the appropriate accounting



methods as per IFRS9 guidance whenever there is modification on the terms of financial instrument.

Consent Management » Capturing Channel Details in Data Protection Consent Arrangements

Available from: **202009**

Temenos provides a new capability within the Data Protection Consent framework to capture the channel through which consent was obtained from a customer.

PSD2 Account Information » Recurring Indicator for Berlin Group APIs

Available from: **202009**

Temenos provides support for the Recurring Indicator functionality under the Berlin Group API Guideline. This assists with validating and expiring PSD2 related consent depending on the type of access.

Customer Data Protection » Excluding Customers from Customer Activity

Available from: **202010**

The enhanced Customer Activity framework now allows banks to exclude or remove certain types of customers from Customer Activity processing. This is enabled using a new parameter application, `ST.REG.EXCLUDE.PARAM.`



PSD2 Account Information » Recurring Indicator Management

Available from: **202011**

The Recurring Indicator functionality has been enhanced to support the expiry of non-recurring consents after successful use for retrieving account information. This functionality provides the ability to maintain multiple consent arrangements for a customer and TPP combination, taking into consideration the Recurring Indicator value.

IFRS9 Accounting » Interest Net Revenue Adjustment for Overdraft

Available from: **202011**

The IFRS9 Framework now allows banks to calculate the interest Net Revenue Adjustment on impaired overdraft accounts. This functionality extends the calculation of interest revenue adjustment to Overdraft Accounts, allowing the interest revenue to be recognised on the net carrying amount instead on gross carrying amount for stage 3 Overdraft Accounts.

Click [here](#) to understand the installation and configuration updates for this enhancement.

PSD2 Payments » Berlin Group Endpoints for Bulk Payments

Available from: **202011**

The PSD2 Payment Initiation Module (PX) has been enhanced to assist banks with Bulk Payment Initiation API endpoints according to the Berlin Group Standard v1.3.4. This functionality provides the ability to:



- Capture and authorise bulk payments in Temenos Transact based on an external call.
- Cancel and authorise bulk payments in Temenos Transact based on an external call.

CRS Client Identification » CRS Corporate Customer

Available from: **202011**

The CRS module is enhanced with a functionality to identify corporate customers who are potentially reportable under CRS and to support the automatic creation and update of CRS supplementary information records for those corporate customers who were not flagged during on boarding. In addition to this, a reasonableness test is now available for corporate customers in order to detect any data inconsistencies between the indicia detected and the customer tax declaration.

FATCA Client Identification » FATCA Corporate Customer

Available from: **202011**

The FATCA module is enhanced with a functionality to identify corporate customers who are potentially reportable under FATCA and to support the automatic creation and update of FATCA supplementary information records for those corporate customers who were not flagged during on boarding. In addition to this, a reasonableness test is now available for corporate customers in order to detect any data inconsistencies between the indicia detected and the customer tax declaration.



CRS Client Identification » Country of Incorporation as CRS Indicia for Legal Entities

Available from: **202012**

Temenos Transact allows the user to record either the place of birth for an individual or the country of incorporation for a legal entity. This information is entered in the *Birth Incorp Place* field in the customer record. The system is now enhanced to consider the country of incorporation for an entity as indicia, in addition to the pre-existing indicia processing.

Click [here](#) to understand the technical impact of this enhancement for customisation and upgrades.

System Tables » FATCA US Territories

Available from: **202101**

This functionality allows users to map US assimilated and unincorporated territories to their reportable jurisdiction (which is the US) and support the correct identification of customers, potentially reportable under FATCA.

Click [here](#) to understand the technical impact of this enhancement for customisation and upgrades.

System Tables » CRS Overseas Territories

Available from: **202101**

This functionality allows users to map overseas territories to their reportable jurisdiction and support the correct identification of customers, potentially reportable under CRS.



Click [here](#) to understand the technical impact of this enhancement for customisation and upgrades.

FATCA Client Identification » FATCA Portfolio Identification

Available from: **202102**

The FATCA status identification at portfolio level functionality is now available for joint ownership of a portfolio. This functionality supplements the QI Status functionality in Temenos Transact to handle US taxation on income from US securities from the Qualified Intermediary (QI) perspective.

CRS Client Identification/FATCA Client Identification » Standing Instruction as an Indicia for CRS and FATCA

Available from: **202102**

Temenos Transact has been enhanced to identify standing instruction as an indicia for CRS and FATCA based on the standing order or deposit arrangement and not on the transaction itself. Standing instruction indicia is met if the payout beneficiary country is a non-local CRS Reportable Jurisdiction (for CRS) or US (for FATCA).

Recognition of Fees » Moving and Resuming of Non-Performing Loans

Available from: **202102**

This functionality allows the accrual of interest to be suspended and amortisation of fees/cost to be stopped, when a performing loan moves to non-performing status. Delta accounting and the splitting of delta are also stopped.



When a suspended loan is resumed to performing status, delta accounting and the splitting of delta are resumed with the recalculation of a new Effective Interest Rate (EIR).

Click [here](#) to understand the installation and configuration updates for this enhancement.

Qualified Intermediary

Available from: **202103**

The Qualified Intermediary or QI module is introduced in Temenos Transact to enable banks that act as a Qualified Intermediary (QI) as per chapter III of IRS, to comply with documentation and withholding requirements relating to the income received from US securities. Such income is subject to withholding under either Chapter III (QI) or Chapter IV (FATCA) of Internal Revenue Service (IRS).

Click [here](#) to understand the installation and configuration updates for this enhancement.

Loan Loss Provisioning » Provisioning for Assets under Risk Segmentation

Available from: **202103**

This functionality allows banks to dynamically calculate the standard and secured percentages considering the asset, customer or any other risk attributes instead of applying static percentages across all the customers in that risk segment.

Click [here](#) to understand the technical impact of this enhancement for customisation and upgrades.



CRS Reporting » CRS Schema XML Updates

Available from: **202103**

This functionality provides the banks with the right tools to assist them in meeting the new requirements introduced by the new CRS schema Version 2.0

Click [here](#) to understand the technical impact of this enhancement for customisation and upgrades.

Consent Management » Berlin Group

Confirmation of Funds Consent

Available from: **202103**

The PSD2 Account Information module (PZ) supports the Account Information Service flows under the Berlin Group. The PZ module has been enhanced to assist banks to support the Confirmation of Funds Consent endpoints exchanged between the third-party provider (TPP) and Account Servicing Payment Service Provider (ASPSP).

PSD2 Account Information » Payment Account Definition for AA Products

Available from: **202103**

Banks can now additionally define Payment Accounts applicable for PSD2 using AA Product Groups or AA Products.

PSD2 Payments » Permissions Checks

Available from: **202103**

The PSD2 workflows have been enhanced to support channels permissions being managed and checked within external systems – not limited only to



Transact managed permissions.

Qualified Intermediary » US Tax Database

Available from: **202104**

The US tax database is introduced to centrally hold the key information that banks can rely on to subsequently generate the tax forms in the IRS prescribed format using their reporting tools. The key information corresponds to the transaction details involving US securities, the income earned and distributed and the tax withheld on such income.

Click [here](#) to understand the technical impact of this enhancement for customisation and upgrades.

CRS Client Identification/FATCA Client Identification » Synchronise Document Details on CRS and FATCA Supplementary Information

Available from: **202104**

This functionality supports the automatic synchronisation of document data, that is, the renewal or closure of documents related to CRS or FATCA on Document Management applications with that of the secondary applications, such as `CRS.CUST.SUPP.INFO` and `FATCA.CUSTOMER.SUPPLEMENTARY.INFO`. This synchronisation of data minimises the manual and repetitive user activity and enhances the system process through automation.

Account Switching Service

Available from: **202104**

The Account Switching Service enables customers switch payment accounts seamlessly from one bank to another without disruptions. The feature ensures



continuity of payments for a customer within a prescribed switching period of 13 months. All future payments and collections that are initiated or processed by a Temenos Transact bank for an account with switch instructions enabled are routed to the new bank's account as per the information on the switch instruction.

IFRS9 Accounting » Takeover Processing of Arrangement Contracts

Available from: **202104**

Arrangement Contracts entered through AA lending application can be taken over using the Takeover Cashflow Activity by entering either the EIR or AMC values. This simplifies the takeover process in the case of Arrangement contracts.

Installation and Configuration Notes



| Regulatory Compliance

Customer Data Protection » Erasure Process for Prospect Customers

Available from: **202007**

Update the *Customer Start Date* field in the `ST.CUSTOMER.ACTIVITY` application with the date on which the Customer was first created in the Transact database.

Banks requesting to retain the existing takeover date need to set the *Ap Cus Start Date Rule* field in the `ST.CUSTOMER.ACTIVITY.PARAMETER` application to *Takeover Run Date*.

Obligor Objects » Creation and Maintenance of Obligor Objects

Available from: **202007**

OX is the new licensed product code for the Obligor Objects module.

Obligor Objects/IFRS Provisioning and Impairment » Identification of Default of Obligors

Available from: **202008**

The Obligor Objects (OX) module must be installed in order for Identification of Default of Obligors feature to be enabled.



Obligor Objects » Default Contagion

Available from: **202008**

JX is the new licensed product code for the Default Contagion feature.

IFRS9 Accounting » Interest Net Revenue Adjustment for Overdraft

Available from: **202011**

Create a record in the `IFRS.ACCT.METHODS` table with ID as `OVERDRAFT`, to enable interest revenue adjustment and to realise the suspended amount under IF Position Type.

Recognition of Fees » Moving and Resuming of Non-Performing Loans

Available from: **202102**

To enable the Suspending and Resuming changes for non-performing loans, RN licencing must be available.

Qualified Intermediary

Available from: **202103**

QI is the product code for the Qualified Intermediary (QI) module. The RT module and the QI module must work in conjunction for the functionality to be complete. The QI module must be installed for the RT module to avail free license.

| Technical Notes



Regulatory Compliance

Consent Management » Automated Consent Creation

Available from: **202007**

Temenos has released the following two JBC APIs as an example:

- **CK.AUTO.CONSENT.CREATION** – This API can be attached to the *Auto Create Consent* field in the `CK.PARAMETER` table to determine whether consent needs to be automatically created for a new customer. It has the following arguments:

Field	Description
<i>Customer Id</i>	An input argument that has the Temenos Transact Customer ID.
<i>Allow Consent Creation</i>	An output argument that returns the following responses: <ul style="list-style-type: none"> • YES to automatically create a consent. • NO to skip.
<i>Reserved1 and Reserved2</i>	Indicates that it can be reserved for future use.

- **CK.VALID.CONSENT.PRODUCT** – This API can be attached to the *Consent Product* field of `CK.PARAMETER` to determine the consent AA product to be used for the automatic consent creation. It has the following arguments:

Field	Description
<i>Customer Id</i>	An input argument that has the Temenos Transact Customer ID.
<i>Product Id</i>	An output argument that returns the AA consent product name to be used for consent creation. For example, <code>CDP.CONSENT</code> .
<i>Reserved1 and Reserved2</i>	Indicates that it can be reserved for future use.



Obligor Objects » Creation and Maintenance of Obligor Objects

Available from: **202007**

Temenos has released the following records in the in the `EB.API` table:

- `HOOK.OX.GET.OBLIGORS` – This record contains the Java interface details corresponding to the *Obligor Api* field in the `OX.OBLIGOR.PARAMETER` table. A Java or JBC hook API can be attached in this field to retrieve the list of obligors and their type.
Obligor type can be `INDIVIDUAL` or `JOINT`:
 - `INDIVIDUAL` – One customer (beneficial owner) is returned.
 - `JOINT` – More than one customer (beneficial owners) is returned.
- `HOOK.OX.GET.REFERENCE.OBLIGOR` – This record contains the Java interface details corresponding to the *Data Inherit Api* field in the `OX.OBLIGOR.PARAMETER` table. A Java or JBC hook API can be attached in this field to retrieve the reference customer (primary) from the list of joint customers.

Temenos has released a sample JBC API, `OX.GET.OBLIGOR.TYPE.API` corresponding to the *Obligor Api* field in the `OX.OBLIGOR.PARAMETER` table. This API returns the Obligor type as individual and single customer ID for non-AA applications. For Arrangement Architecture, the Obligor type is classified as joint or individual based on the *Beneficial Owner* field in the `AA.CUSTOMER.ROLE` application. Banks can have their own logic and attach the API.

Perform the following steps to implement the Obligor Objects module to take over the existing contracts:

- After completing the parameter setup, run the `OX.OBLIGOR.CREATE.SERVICE` one-time service to add the existing contracts to the `OX.OBLIGOR.DETAILS` table.
- This service selects the `ST.CUSTOMER.ACTIVITY` table and adds the list of active contracts in the `OX.OBLIGOR.DETAILS` table.



- To take over the existing contracts, the `ST.CUSTOMER.ACTIVITY` table must be built before running the `OX.OBLIGOR.CREATE.SERVICE`.

Obligor Objects/IFRS Provisioning and Impairment » Identification of Default of Obligors

Available from: **202008**

Temenos has released an `OX.OBLIGOR.PARAMETER.DEF.CLASS.HOOK` record in the `EB.API` table, which contains the Java interface details corresponding to the *Default Update API* field in the `OX.OBLIGOR.PARAMETER` table. A Java or JBC hook API can be attached in this field to retrieve the risk classification of the Obligor.

- This hook is applicable only in the absence of the PV module and is invoked during the obligor classification process in COB to return the risk classification of the Obligor.
- The obligor details record is passed to this hook to retrieve the assessment result. If the result is one of the classifications mentioned in the *Def Equiv Class* field in `OX.OBLIGOR.PARAMETER`, then the obligor will be marked as 'Default', otherwise it will be marked as 'Performing'.

CRS Client Identification » Country of Incorporation as CRS Indicia for Legal Entities

Available from: **202012**

The `CRS.GET.INDICIA` API is modified to consider the country of incorporation as an indicia and to identify the customer's reportable jurisdiction. So, any local developments done based on this API needs revisiting.

System Tables » FATCA US Territories



Available from: **202101**

The ST.GET.COUNTRY.FROM.PHONE.NO API is released to return the country to which the phone number belongs.

System Tables » CRS Overseas Territories

Available from: **202101**

The ST.GET.COUNTRY.FROM.PHONE.NO API is released to return the country to which the phone number belongs.

Loan Loss Provisioning » Provisioning for Assets under Risk Segmentation

Available from: **202103**

Temenos has released the PV.PROFILE.SEG.STD.SEC.API.HOOK, which corresponds to the *Seg Std Sec Api* field in the PV.PROFILE application. A Java or JBC API can be attached to the *Seg Std Sec Api* field.

The following parameters are sent to the JBC API from Temenos Transact:

1. APPLICATION.NAME – Holds the application name
2. CONTRACT.ID – Holds the ID of the contract
3. RISK.SEGMENT – Indicates the risk segment contract
4. SEGMENT.CLASS – Indicates the segment classification contract
5. SEGP.ROVTYPE – Indicates the type of provision done
6. RESERVED1 – Reserved input for future use

The following parameters are returned by the JBC API:

7. STANDARD.PERCENT – Indicates the standard percent that will be returned
8. SECURED.PERCENT – Indicates the Secured percent that will be returned
9. ERROR.MSG – Indicates exceptions, if any
10. RESERVED2 – Reserved output for future use



CRS Reporting » CRS Schema XML Updates

Available from: **202103**

NIL report for CRS can be generated by creating a record with NIL.REPORT ID in the `CRS.XML.REQUEST` application.

IAS39 » IAS Purge History COB Job to Online Service

Available from: **202103**

The IAS Purge History COB job purges all the `IAS.CONTRACT.BALANCES.HIST` records, which have crossed the period specified in `IAS.PARAMETER`. It is moved as an `IAS.PURGE.HISTORY` online service. The user has to trigger the `IAS.PURGE.HISTORY` service, if they want to delete the records in `IAS.CONTRACT.BALANCES.HIST`.

Qualified Intermediary » US Tax Database

Available from: **202104**

An eligibility check is invoked for US tax database during transaction authorisation from relevant securities application. The `QI.CHK.USDB.TX.UPD.ELIGIBILITY` API validates the transaction against the tax types in the `QI.PARAMETER` application. The `QI.CHK.USDB.TX.UPD.ELIGIBILITY` API, which is a public API allows further customisation if required.

The following parameters are sent to the JBC API from Temenos Transact:

- `APPLICATION` – Holds the `SEC.TRADE`, `ENTITLEMENT` or `SC.ADJ.TXN.UPDATE` application names
- `APPLN.ID` – Refers to the record ID of the transaction
- `APPLICATION.REC` – Indicates the transaction array



- QI.PARAM.REC – Contains the `QI . PARAMETER` record of the Customer Company to which the transaction belongs.
- MESSAGE – Indicator of the authorisation message, which usually contains the AUT value.

The following parameters are returned by the JBC API:

- QCSI.TRG.ID and QCSI.TRG.REC – The ID of the `QI . CUSTOMER . SUPPLEMENTARY . INFO . TRIGGER` trigger table.
- QCSI.TRG.REC – The trigger record array to process any additional information.
- RESERVED.1 – Reserved for future use
- RESERVED.2 – Reserved for future use
- ERR – Indicates the error messages, if any.

Movement of Data Artefacts from ST

Available from: **202104**

The following components from the System Tables (ST) module under Banking Framework are now moved to the Regulation Tables (RT) module under Regulatory Compliance.

- ST_OpenBanking is now RT_OpenBanking
- ST_Regulation is now RT_Regulation

NOTE: After the R21 upgrade, the local development should refer to the above component in RT instead of ST.

|Temenos Infinity



| Digital Banking

Infinity Retail Banking

Infinity Retail Banking is used to manage retail banking features such as accounts, transfer money, find ATMs and branches, deposit checks, and more from any channel.

What's New in 202007

The following features have been introduced in Infinity Retail Banking.

- **Card Transactions and Statements:** Customers can view transactions performed on the card and statements through the mobile banking application. This is in addition to the existing card management functions such as Lock/Unlock, Change PIN, Replace Card, Report Lost or Stolen and Cancel Card.
 - View Transactions - View the list of recent transactions performed on the card and click on the transaction to view complete details of the transaction.
 - View Statements - View the archived statement for the card issued by the bank including previous year's statement.
- **Activate Card:** Ability to view the status of the card (such as Issued, Active and Inactive) and activate a new debit/credit card issued from the mobile banking application. Debit/credit card can be activated by providing the required details for Multi-Factor Authentication verification, for security purposes. A new card that is issued when an old card is about to expire can also be activated.
- **Payments for Europe Region:** Introduced new payment experience for Europe region in online and mobile banking applications for transferring funds between customer's own accounts, making payments to others in the same region, and international payments. This payment experience is



integrated with Temenos Transact to process the payment record for execution.

- **Bulk Transfers:** Customers can make bulk transfers to multiple beneficiaries at one go for transfers within the country.
- **Loan Payments:** Customers can make payments against the loan account for upcoming payments that are due, partial payment to clear the outstanding dues, and pay off the complete loan amount using the mobile banking application.
- **Cheque Management:** Customers can view the status of individual cheques that have been issued to them. They can create a Stop Cheque Payment request for a single cheque or a series of cheques and view the fee or service charges that are associated with the Stop Cheque Request.
- **Cheque Book Request:** Customers can place a request for new cheque books from online and mobile banking applications with an option to be delivered to the mailing address or collect from the branch directly.
- **Download Transactions:** Customers can download the details of the individual transactions displayed under an account in PDF format.
- **View Cheques and Swift MT103 Messages:** Customers can view or download transaction summary, which provides details on cheques, demand drafts, and Swift MT103 messages for reference purposes.
- **Accounts Enhancements:** Accounts overview has been enhanced to improve the customer experience with the inclusion of additional fields for various types of accounts such as Checking, Savings, Loans, Deposits, and Cards.
- **Account Ownership Change:** A primary owner of an account can raise a service request via secure message to change the ownership of the account and track the service request using a Reference ID. The bank agent is notified on the Spotlight application regarding the service request.
- **Dispute Transaction:** Customers can dispute a transaction and view the status of the dispute request on mobile banking application.
- **Notification Center:** Customers can view alerts and notifications received from the bank through mobile banking application.
- **Account Aggregation Enhancements:** Banks can automatically receive the latest Open Banking Directory provided by Central Financial Institutions. The account holders can renew consent for their external bank account held in account aggregation, before expiry (normally 90 days).



What's New in 202010

The following features have been introduced in Infinity Retail Banking.

- **Savings Pot:** Ability to help customers save money for specific needs (planning a world trip, buy a new car, or simple savings) that they have in a simple way by setting aside money within the main account and secure it from the spending. Savings Pot helps the customer to contribute towards their goals or reserve the money for savings. Two types of Savings Pot are supported:
 - **Goal Pot:** A Goal Pot is used to set aside funds periodically to meet a future Goals like vacation, buy a new car, etc. The Goal Pot can be created from a main Account such as savings or current account (principal account) where the latter is source of funds to the Goal Pot.
 - **Budget Pot:** A Budget Pot is opened to allot some money for use at a future point of time from a main account.
- **Card Management Enhancements:** Self-service capability for users to perform the following actions on the cards that they use:
 - **Apply for a Debit Card:** Apply for a new debit card using online banking and native mobile banking applications.
 - **Activate a Debit Card:** Activate a new debit card issued to the user as well as a new card that is issued when an old card is about to expire can also be activated from the online banking application.
 - **Setup Daily Limits:** User can set up Daily Purchase Limit or Daily Withdrawal Limit for a specific account using online banking and native mobile banking applications.
 - **Ability to quickly navigate to the Card Management module from the context of an account using quick actions on the dashboard.**
- **Enhanced Money Movement Flow for Europe Region**
 - **Ability to make payments against a Credit Card by paying the minimum due amount, current statement due, and total outstanding balance or any other amount.**
 - **Notify the user when a SEPA payment is initiated after the cut off time and provide an option to go with "Next Business day" or "Same day" payment.**



- Ability to make one-time payments for accounts within the same bank, domestic and international beneficiaries.
- View Exchange Rates and Charges involved while making an International or Domestic payment.
- Adding attachments as part of the payment and transfer flow and retrieve the attachments when the user is viewing the past and scheduled transfers.
- Ability to download the payment reference when a new payment is made on the online banking application.
- Option to quickly repeat a past transfer without providing all the information again.
- Automatically retrieve the beneficiary name based on the account number for payments within same bank and look up for BIC, bank name, and bank address based on the IBAN.
- Permission based controls for adding or removing a beneficiary within same bank, domestic, and international beneficiaries.
- **Loan Schedule:** Enable the customers to view their loan/amortization schedule including previously paid instalments, instalments that are overdue from the past, and a summary of the future payments that the customer will have to pay. Ability to print the loan schedule as well as download in CSV or PDF format.
- **Account Statements:** Ability to view more than one statement in a specific month based on the frequency of the statements either weekly, bi-weekly, monthly, or a consolidated quarterly or annual statement generated in a specific month. Experience APIs have been enhanced to integrate and retrieve Statements from a third-party document management system.
- **Transaction Search:** Integrated with Transact for partial keyword search as well as searching transactions based on Transaction Type, Amount, and Date Range.
- **Service Request Microservice:** Generic order management system helps to capture different service requests created by the customers using the Digital Banking channel and maintain the entire life cycle of the service requests. Banks may require different systems for processing different type of service requests. Service Request microservice is proficient to integrate



with multiple systems for processing and different styles of order processing based on the service request type.

- **Real-Time:** When a user submits a service request, the order is captured in Service Request MS and instantly processed by the Core or third-party system. The acknowledgment is shown to the user immediately based on the response from both third-party system and Service Request MS.
- **Near Time:** When a user submits a service request, the order is captured in Service Request MS and an acknowledgment is shown to the user immediately based on the response from Service Request MS. Subsequently, the request is passed to the third-party system for processing and the status of the request is updated to the user based on the response from the third-party system.
- **Enhancements for Dispute Transaction:** Ability to capture the Dispute Transaction Request as part of the Service Request MS and pass on the request to a third-party system in the background. Also, notify the bank agent on Spotlight using a secure message whenever a dispute request is raised from online banking or native mobile applications.
- **Cheque Book Request and Stop Payment Request:** Integrated with Service Request MS with Real Time and Near Time order style to capture the order in Service Request MS and manage life cycle of the service request based on the response from the third-party system.
- **User Enrollment with Activation Code:** Bank staff can enroll an existing customer for digital banking access. Once enrolled from spotlight, the system generated username and activation code are shared with the customer via email and phone number. The customer can then enter the username and activation code in online banking application to activate their profile.

What's New in 202101

The following features have been introduced in Infinity Retail Banking.

- **Cheque Book Request and Stop Payment Request:** Bank users can Activate/Deactivate user permissions for Cheque book request and Stop payment request at the FI level.



- Enabled "Cheque book request" as a separate Feature with Action for "Create Cheque book request" at Master Data Management level (System level).
- Enabled a separate Action for "View Cheque book request" at Master Data Management level (System level) under "Cheque book request" feature.
- Enhancement to enable entitlement for "Stop Payment Request". Enabled "Stop Payment Request" as a separate Feature with Action for "Create Stop Payment request" at Master Data Management level (System level).
- Enabled a separate Action for "View Stop Payment request" at Master Data Management level (System level) under "Stop Payment Request" feature.
- Enabled a separate Action for "Revoke Stop Payment request" at Master Data Management level (System level) under "Stop Payment Request" feature.
- Enabled "View Cheques" as a separate Feature and Action at Master Data Management level (System level).
- **Revoke Stop Payment Request:** Users can initiate a stop payment request for various reasons from online and mobile banking. Now the users can also revoke stop payment request of a single cheque or series of cheques from online and mobile banking.
- **User Preferences and Settings**
 - Ability for the users to access and manage profile settings while using online banking application in mobile web browser. Using this feature, users can:
 - View personal details
 - Upload profile picture
 - Add/Edit phone numbers
 - Add/Edit email ID
 - Add/Edit address
 - Change language
 - Disable e-banking access



- Enabled an integration with Transact and Arrangement Microservice for Statement Preferences (e-statements and printed statement) of an account from digital banking.
- Enhancements around adding and updating phone numbers, email address and postal address via Service Request Microservice.
- Self-service option for users on Responsive Web and Mobile Native applications to quickly disable their online banking access.
- Ability to enable face authentication as a default sign-in option on Android devices and sign into the mobile banking application.
- **Accounts and Statements**
 - Enhancement to differentiate between accounts held by the user. The accounts are displayed in Account Nickname + Account Number (masked with last 4 digits) format in Accounts dashboard and Account overview screens.
 - Enhanced the loan accounts overview in Responsive Web and Mobile Native to display relevant fields and mapped with fields in Transact, Holdings, and Arrangements Microservice.
 - Transactions list and loan schedule has been enhanced to navigate to first and last pages as well as view the total number of pages.
 - Ability to generate and download a combined statement across multiple accounts.
- **Savings Pot**
 - Users can create Savings Pot (Goal Pot/Budget Pot) in the same currency of their selected Primary Account (Principal Account), to which they are willing to create Savings Pot.
 - Enabled Entitlement for Savings Pot module for online and mobile banking with appropriate Features and Actions at Master Data Management (system level).
- **Statement Preferences Settings:** Enabled integration with Transact and Arrangement MS for the Statement Preferences (e-statements/ printed statement) of an account from banking applications.
- **Attachments for Secure Messages:** Enhanced to add an attachment for the Message module in mobile banking and download the attachment from the existing message. Also, integrated with Document Microservice as document storage point.



- **Service Request Microservice - Service Request Statuses Mapping:**
Service Request Microservice sends request received from banking applications to various backend systems for request processing and in turn each request receives different responses in different format. Introduced Request status mapping within Service Request Microservice that allows the bank users to configure to send meaningful status values to a customer-facing banking application.
- **Direct Debits:** Bank users can view and cancel direct debits (mandates) set up on their account. The Infinity banking application displays only those direct debits where the bank user's accounts are debited during a collection request.
 - Direct Debit records are present in the Manage Transfers screen on the Direct Debits tab.
 - The cancel direct debit requests are routed via Service Request Microservice.
 - Entitlement for Direct Debits module for online and mobile banking applications with appropriate Features and Actions has been added in Master Data Management (system level).
- **Europe Money Movement Flows**
 - When a user initiates any payment in transfer or beneficiary flow, the payment is tracked part of the system as audit log. It helps the user to understand the request status regarding Euro money movement flows.
 - All the logs are saved as part of user administration system (Spotlight). Users can query and get the appropriate details.
 - Added attachments as part of the payment and transfer flows and retrieve the attachments when the user is viewing the past and scheduled transfers. Attachments are stored and retrieved in Document Microservice.
 - Quick access link from account summary screen is configurable and based on the demands/needs, banks can configure the respective options part of account summary (for example - Transfer Money, Pay Money, Saving Pot and more).
 - As part of payment journey, users can save the beneficiary details and view the details on the Manage Beneficiary screen.



- **Audit Logs:** Generic implementation of audit logging driven by a configuration file to capture the service request and response for all the business scenarios. Capability to avoid sensitive fields from getting logged.
- **Consent Management**
 - Bank users can view and manage the Consent Types that the banks have applied to them via a new menu.
 - Customers can view and choose the relevant choices and edit at any time.
 - Consents can be temporarily blocked or removed based on bank's terms and conditions.
- **Manage Account Access from Third-party (PSD2 Consent Management):** Users can view and manage the consent given to a third-party provider (TPP) for accessing their account data. The new feature allows users to:
 - View the third-party providers (TPPs) that have access to users' accounts.
 - View the elements of the consent given to a specific TPP such as account(s) that the TPP has access to, account level permission(s) given to the TPP and consent expiry date.
 - Revoke the consent given to a TPP.
 - View and manage the new consent features only if proper user permissions are in place. This means that the bank users can enable or disable user level actions for the PSD2 Consent Management feature at the FI level through configuration in Spotlight application.
- **US SaaS: Transfer Activities and Manage Recipients**
 - New Transfer Activities component is consumed as part of US flow. It shows the list of transactions with status and actions. Users can do a search, sort, filter, and use pagination on the Transfer activities screen. These actions are controlled from the client-facing banking application.
 - As part of manage recipients, users can do a search, sort, and use pagination. These actions are controlled from the client-facing banking application.



What's New in 202104

The following features have been introduced in Infinity Retail Banking.

- **EU Money Movement Flow:**

- Direct Debits – Skip Next Payment - The customer user is provided with a new option “Skip Next Payment” for their direct debit. The aim is that the user does not want to pay for the next bill. Once user confirms this action in Infinity, the request is routed to Transact via Service Request MS.
- Submit Payment with Insufficient Funds - If a user while making a payment selects an account whose balance is less than payment amount, an alert message will be generated on the Review screen to inform the user of the same. User will be allowed to submit the payment. On the Transfer Activities screen, the user can view the payment with status as “Awaiting Funds”. This applies to both transfer between own accounts and payment to third parties (same bank and other bank).
- Cancel Payment with Insufficient Funds - For a payment whose status is “Awaiting Funds” on the Transfer Activities screen, the user is also provided the option to cancel the payment. Once the user confirms cancellation of such a payment, the status of the payment is updated to “Cancelled”. This applies to both transfer between own accounts and payment to third parties (same bank and other bank).
- Enhancements on Payment Acknowledgment Screen.
 - The “Available balance” field (of From Account) has been removed from the Acknowledgment screen.
 - The message on the Acknowledgment screen has been updated to “Your transaction has been submitted successfully” where submitted replaced the word “processed”. Note that this new message does not apply in the following cases:
 - A future-dated payment
 - A future-dated payment pending approval by other users.
 - A current dated, single payment that requires approval by other Infinity users.



- A standing order (recurring payment)
- A standing order (recurring payment) that requires approval by other Infinity users.
- **Transparency Data for Transfer Between Own Accounts:** For transfer between Own Accounts, customer users can view the following set of fields in the Review and Acknowledgment screens. Note that the values are already being displayed for payments to third parties.
 - FX rate (in case transfer currency is different from the From Account currency).
 - List of Charges (if configured in transact for transfer between own accounts).
 - Total debit amount
- **Credit Value Date** - For transfer between own accounts and payments, Credit Value Date is displayed on Review and Acknowledgment screens.
- **Transfers Activities - Restriction of Actions on Transfers and Standing Orders in case of Existing Requests:** Applies to both transfer between own accounts and payment to third parties.
 - For a payment in Scheduled status under Transfers tab, system will not show the Cancel Transfer action button if a Cancel action has already been initiated on that payment & it is pending approval by other user(s)
 - For a standing order in Active status under the Recurring tab, system will not show the Edit and Cancel Series action buttons if an edit/cancel request has already been initiated on that standing order and it is pending approval by other user(s).
- **Card Management Enhancements** - Enables customers to push their Debit and Credit Cards from mobile banking application into digital wallets to make secure payments. Note that the current capability provided is an MVP version with required components built into the infinity layer for pushing cards into native wallet applications. End-to-end testing can be done only during implementation for a specific project as this requires certificates from Apple, Google, and Samsung, and access to the APIs provided by the Card Provider for tokenization of card information.



- Add Cards to Apple Wallet: Enables customers to push their Debit and Credit Cards from mobile banking application into Apple Wallet on their iOS devices in a secure manner so that they can make payments via Apple Pay using these Debit and Credit cards.
- Add Cards to Google Pay: Enable customers to push their Debit and Credit Cards from mobile banking application into Google Pay on their Android devices in a secure manner so that they can make payments via Google Pay using these Debit and Credit cards.
- Add Cards to Samsung Pay: Enable customers to push their Debit and Credit Cards from mobile banking application into Samsung Pay on their Samsung devices in a secure manner so that they can make payments via Samsung Pay using these Debit and Credit cards.
- **Service Request Microservice – Signatory Approval Flow:**
 - Service Request microservice (SR MS) is enhanced to maintain and track the Signatory Approval on a Service Request raised by the customer users in Infinity.
 - The user can configure a mandate (approval flow) in SR MS for any financial / non-financial action.
 - If the user submits a request to SR MS and the request requires Signatory Approval, such requests are not sent to the back-end system for processing until all required Signatory Approvals are complete. In this case, the customer users are informed of the request being sent for Signatory Approvals.
 - SR MS persists the request and dispatches the request to the back-end system for processing only after Signatory Approvals are given.
 - Once a Signatory takes an action as Approve or Reject on the received request, the Signatory action details are persisted in the SR MS against respective Request.
 - For this release, the Signatory Approval flow is configured so it can be set up for chequebook request.

Infinity SME Banking

Infinity SME Banking is used to meet the needs of business owners of small and



medium business establishments with a set of features that allow for efficient management of business finances across any device.

What's New in 202007

The following features have been introduced in Infinity SME Banking.

- **Combined Access to Retail and Business Accounts:** This feature allows Financial Institutions (FI) to extend the capability to their customers (who have both business and retail relationships with the FI) to have a combined view of their retail and business accounts, using a single set of login credentials.
- **Business Enrolment:** Business owners can enrol their business for online banking access. The enrolments can either be auto-approved or approved by the FI's based on the configuration.
- **Native Mobile Application for Business Users**
 - Permission-driven access to features: Permission-driven access to all existing banking features in the native application to ensure that a feature and the associated actions are visible only if the user has the appropriate permissions as configured by the FI and/or by an authorised person within a company (for business users).
 - Business and Combined user dashboards: New dashboards for business users are added with easy access to business-critical functions like approvals and cash position charts. Banks can enable a specialised dashboard for users who have a combined access to their retail and business accounts.
 - Flexible dashboards: The application displays a dashboard that meets the specific needs of the user signed in to the application, based on the type of user (retail or business) and the permissions available to the user.
 - Automated Clearing House (ACH) transfers: Business users can view the history of all ACH transactions, file uploads, and approve the pending transactions and files.
 - Approvals and Requests: Business users can approve or reject transactions (Transactions, ACH Transactions, and ACH Files) and manage all the requests raised by the users.



- **User management:** Authorised business users can view the details of all other business users, view the permissions assigned to the users, and activate or deactivate a user.
- **Bulk Wire Templates:** Online banking application users can create, manage and use predefined wire transfer templates. The template functionality allows for faster initiation of a wire payment to a group of payees for whom frequent transfers are initiated.
- **Daily and Weekly Transaction Limits:** A transaction limits engine has been added as a service, which provides the daily and weekly balances for different transactions at various levels - company, role, customer, and account. Any feature that involves transfers or payments can query the transaction engine for a response on how to handle the transaction - either submit or schedule for execution, process for approvals, or deny the submission of the transaction.
- **Authorisation of ACH File Uploads:** Banks can manage permissions, transaction limits, and approvals for ACH File uploads.
- **Approval Management Enhancements:** Ability to auto-update the rules defined in the approval matrix when approval permissions of a business user are revoked by an admin user or by the FI. The approval status on various features is also displayed.
- **Tracking Financial and Non-Financial Events:** The Audit/Event Log engine registered with Queue Master is used to log events for approvals, rejections, and user management functions.
- **Custom Role Templates:** The business owners and other authorised managers of business users can create and manage pre-defined roles that are customised for individual business needs. Instead of setting up each user's permissions individually, an authorised user can use a predefined custom role to set up a new user quickly.

What's New in 202010

The following features have been introduced in Infinity SME Banking.

- **Dashboard Enhancements for Retail, Business, and Combined Access Users on Online and Native Mobile Banking:** A single unified dashboard is now available in the product which renders itself based on



the profile of the logged-in user.

- **Advanced Interactive Filtering, Grouping, and Sorting Options**
 - Interactive filters are available to group by account type and customer/company.
 - Extended sorting capabilities to sort accounts by account type, account name, and account balance.
 - Advanced filtering capabilities based on account type and currency.
- **Custom Views:** The custom view feature enables access to the custom views feature to create and manage custom views for a personalized experience of the dashboard. Using the custom views, a user can create and view a subset of accounts on the dashboard. These custom views are managed at a user level and are available on online and native mobile banking applications.
- **Integration with Microservices and Transact (T24) for SME Banking:** SME Banking is integrated with Transact using IRIS APIs across the various areas of functionality – accounts dashboard, account details, and transaction details for authorized users.
- **Enhanced Cash Position Charts:** The business cash position chart on the online banking application is enhanced to show cumulative values of all the credits, debits, and available balances for the time frame of choice (Daily, Weekly, Monthly, and Yearly) either for a specific customer/company or for all business accounts. On the native mobile application, a pull-down detail view of the cash position is provided.
- **Native Mobile Application Enhancements for Combined Retail and Business Users:** Indications and sectioning are added to distinguish between personal and business accounts/recipients in various modules of the application such as - Transfers, Transfer Activities, P2P transfer, Check Deposit, Bill Payment, Manage Recipients, Cardless Cash withdrawal, Card Management, and Profile Management.
- **Handling and Display of Company Name:** For business users, on all modules across the application, the accounts displayed are now grouped by the company name to which the accounts belong.
- **Enhancements/Revisions to Permission Controls:** Extended features and actions available on Bill Payments, RDC, Call Bank, PFM, Withdraw Cash, and Custom Views.



What's New in 202101

The following features have been introduced in Infinity SME Banking.

- **Enhancements to User Management (OLB)**
 - Authorized Business Owners and Contract Admins can add new users to Transact over their accounts with a faster and more optimized experience from the self-service channel. The application now supports configuration-based approach for creation of users from existing customers in the core.
 - Authorized users can add permission restrictions by assigning roles for users at company/customer ID level. These rules would then translate into permission restrictions which is an intersection of what is offered by the role and what is allowed to the customer ID in the contract. Alternatively, User Administrators can also view the advanced view of all the user permissions at account and feature level.
- **Enhancements to User Management (Spotlight):** Bank users can now create new users for a contract with faster and more optimized experience. Bank users are no longer required to go through the long list of permissions at account and features level adding/modifying one at a time. Concepts such as “Policy sets” and “Service Definitions” are integrated into Spotlight and this helps to simplify the overall process of creation of contract and associated business users.
- **Enhancements to the Approval Matrix and Approvals Engine:** Business Owners can define an Approval Matrix for their company with a faster and more optimized experience.
 - View and set up the approval matrix at the Customer level from the OLB application: The approval matrix set-up UI has been enhanced to support the approval matrix set-up at the customer level. Users can also switch to a per account level view to view or set up the approval matrix for individual accounts under a customer.
 - Enable/Disable the approval matrix for each Customer: The Approval Matrix can be disabled for a customer which allows straight through processing of all transactions for a specific customer.



- No Approvals scenario for a range of values: Users can disallow Rule Check for a specific range of values. For this range, no approvals are required on transactions and such transactions are subject to straight through processing (STP).
- Approvals Engine supports Self-Approval: The application allows for straight through processing (STP) of transactions. When the initiator of a transaction is also an authorized approver for the same transaction, there is no longer a necessity for the user to explicitly approve the transaction.
- Approvals for Euro Payment: The application supports approvals for Euro payments along with currency conversion.
- **Enhancements to the Approval and Request Dashboard (OLB & Native Mobile)**
 - On the OLB application, My Approvals and My Requests dashboards are enhanced to allow the users to view the list of transactions which are pending their action and the history of all transactions which were approved/rejected in the past under two separate tabs. Any pending requests are now categorized under three revised sections: Single Transactions, Bulk Transactions, and Other Requests.
 - The Native Mobile widget and pulldown for Approvals & Requests is enhanced to support these new groupings and classifications.
- **Foreign Exchange (FX) Rates and Calculator:** A calculator to convert one currency into another using the exchange rate in the application. The base currency details as well as the buy and sell rates of other currencies are displayed in the FX module.
- **Integration with Transact (OLB & Native Mobile):** The OLB application is integrated with Transact using IRIS APIs across the various areas of functionality for a user with access to multiple customer IDs – accounts dashboard, account details, transaction details, bulk payments, profile settings, and Euro payment flow. On the Native Mobile application, the homepage/dashboard, transfer activities, and profile settings are integrated with Transact using IRIS APIs.
- **Handling and Display of Customer Name in OLB and Mobile Native:** For all users, on all the modules across the application, the accounts



displayed are grouped by the customer name to which the accounts belong.

- **Bulk Payments:** Bulk payment capability is added as part of Corporates/SMEs Internet Banking. Bulk Payments is integrated with Transact application directly. The request is created in Transact and processing of the payments is handled by Transact. The bulk payment feature currently supports the following functions and abilities:
 - Upload bulk payment files in both xml (PAIN.001.03) and csv (T24 Proprietary format) files to create request.
 - Create bulk payment request via online templates instead of file upload.
 - Review the bulk payment request done via file upload or template.
 - Submit the bulk payment request created via file upload or template.
 - Track the status of bulk payment request pending for authorization.
 - Review the rejected bulk payment request and re-submit for authorization.
 - Track the status of payment processing post authorization.
 - Maintain list of bulk payment templates for reuse.
 - The supervisor approving the bulk payments can view the list of bulk payment request pending for authorization and choose to Approve/Reject as required. Post authorization, the bulk payment request is initiated for processing the payment.
 - Supports approval matrix.
 - Supports limit validation.
 - View the status of the requests submitted for processing.
 - Supports two types of batch processing:
 - Single – This mode is used for payroll/bonus processing (single debit and multiple credits).
 - Multiple – This mode is used for mass payments like vendor payments (each transaction is processed separately).
- **Beneficiary Management Enhancement for Handling Contract Structure:** The beneficiary is tied/linked at a customer ID level. A user can share the beneficiary with other customer IDs (to which the user has permission) or associate with one or multiple customer IDs. In the “Manage Beneficiary” feature, the beneficiaries are listed based on the customer IDs



to which the user has access. The beneficiaries created are stored in DBX DB.

- **Enhancements to Enrollment Requests (OLB & Spotlight)**

- The name of the Individual customer/company is clearly displayed at all places relevant in Spotlight and the OLB application. During the self-service enrollment in OLB, the user can choose a service for the contract as well as features for individual Customer IDs within the contract/virtual company.
- In Spotlight, the pending and rejected enrollment requests shows the customer ID and name along with other details like the tax ID and the service definition chosen.

What's New in 202104

The following features have been introduced in Infinity SME Banking.

- **Alerts for Business Scenarios-** Alerts have been added for various payment initiation and approval scenarios for both US and Euro flows. Alerts have also been added for Edit/Cancellation of future-dated payments as well as Chequebook Request initiations.
- **Bulk Payment Enhancements:**
 - UI enhancement: Enhanced UI for better usability to track status of the file uploaded by user along with processing status with actions to review and submit the request for approval and execution.
 - Editing of bulk payments: A new function has been introduced where a user can edit the bulk payment request before execution. The user can edit error payments, add a new payment, or modify the existing payment details. This eliminates the need to re-upload the file again in the event of any incorrect data.
 - Supporting XML file: PAIN 001 XML files are now supported where a user can upload XML file for bulk payment processing.
 - Cancellation of warehoused payment: A user can cancel a warehouse bulk payment which is future-dated and yet to be executed by the core application.



- **Approval Enhancements:**

- Approvals for cheque book requests: The Approvals Engine has been enhanced to support mandates on non-monetary actions like chequebook requests and cancellation of future dated payments. Ability is available to turn on approvals for Chequebook requests for a specific customer. The approval matrix set-up as well as the dashboard view for both initiators and requestors have been enhanced to support mandates on chequebook requests.
- Approvals for cancellation/modifications of future dated scheduled and recurring transfer: Ability to turn on approvals for Cancellation/Modification of future dated Scheduled and Recurring Transfer. The approval matrix set-up as well as the dashboard view for both initiators and requestors have been enhanced to support mandates for Edit/Cancel scenarios.
- Payment approval flow in integration with Transact: Payment involving additional approval flow will be held in Transact at the time of initiation where the exchange rate and charges are displayed to the initiator as part of transparency check. Post final approval by the approver, the payment will be moved to live status and submitted for further processing.
- Newly created accounts automatically added to approval matrix: Authorized users can view and set-up approval matrix for newly added accounts. The newly added account shows in the Approval Matrix under the respective customer ID and rules can be configured for the account.
- Native bulk payment approval flow: Approvers and Requests on mobile banking have been enhanced to support bulk payments.
- Limit group handling on dashboard widget and approval flows: Monetary requests are shown grouped by the limit group on requestor and approver dashboard widget and in the approval flows.
- Display supporting documents attached to approvers: Approvers can view and download the supporting documents uploaded by the request initiator while submitting the payment transaction. This is applicable only for transfers and payments with Request Type as "Create/Edit Transfer". The initiator can upload up to five



attachments per transaction and all approvers for the transaction can view the uploaded document.

- **User Management Enhancements:**
 - SME/businesses will be able to remove access to Customer IDs for a user in scenarios where they want to restrict access to a user. The system will suspend the user (cannot sign in) if removed Customer IDs were the only Customer IDs the user could access. Reactivating the user can be done by the bank staff member from Spotlight in case the user needs access to new Customer ID as part of a new SME/business or new retail contract opened with the bank.
 - Enhanced to make access to newly created accounts against Customer ID easier. SME/businesses can define whether a user for a given Customer ID gets automatic access to new accounts (called Implicit Access and set at user level as Auto Access to New Accounts set as Toggle ON) or not (called Explicit Access and set at user level as Auto Access to New Accounts set as Toggle OFF).

Infinity Onboarding (Origination)

Infinity Onboarding application enables banks and credit unions to open an account for new customers across multiple channels. It seamlessly integrates with other Infinity apps suite and it is also available as a standalone solution, providing a simple and intuitive account opening experience.

NOTE: From 202104, Infinity Onboarding is renamed as Infinity Origination.

What's New in 202007

The following features have been introduced in Infinity Onboarding:

- **Product Dashboard:** The customers expect to select their products, while FI's product managers need an easy and flexible way to publish the offers. The Product Dashboard delivers a simple and efficient UX while remaining highly configurable from a data standpoint, so that the FIs can make changes on the go. All data comes dynamically from the Marketing catalogue microservice.



- **Product Selection:** The Product Selection enables the customer to select products while in the application journey and avail single or multiple products, and choose additional features for the selected products such as debit card opt-in, e-statement opt-in, overdraft protection opt-in, and more. All data comes dynamically from the Marketing catalogue microservice.
- **Funding:** The module supports transfers between accounts including the Instant Account Verification (IAV) capability to verify an external account. Existing customers can transfer money to their newly opened account.
- **Co-applicant Enrolment:** Co-applicants can now enrol themselves through the link they receive on opening a new account to view the account(s) associated with their profile.
- **UTP Support:** Support for UTP (Unified Test Platform) and Test Automation.

What's New in 202010

The following features have been introduced in Infinity Onboarding:

- **Prospect Authentication:** Enhancements on the prospect experience with authentication from user-experience and security perspectives. The prospects will now receive a temporary password when trying to resume an application.
- **Quantum Workflow:** First version with support to Quantum Workflow covering the post-submission workflow from Submission, Decision, Core Integration, and Funding.
- **Funding:** Enhancements to funding module with support for prospect's funding of accounts.
 - Customer Due Diligence (CDD) Management in Spotlight enabling the bank's user agent to capture and update the basic CDD data for users.
 - Product Marketing Catalog Management in Spotlight integrated with Marketing Catalog Microservice and enables easier and simpler product management.
- **Microservices (MS)**
 - Release of a new set of microservices and enhancement to microservices including Origination Data Storage MS, Document



Storage MS, Receipting MS, and Customer Due Diligence (CDD) MS.

- Enhancements to Marketing Catalog MS.
- **Overall enhancements across the application**
 - Infinity Origination application enhancements.
 - Enhancements in microservices.
 - Spotlight and Workspace enhancements.
 - Bug fixes.
- **Unified Test Platform (UTP) Support:** Released additional UTP test automation scenarios.

What's New in 202101

The following features have been introduced in Infinity Onboarding:

- **New Workflow Process Engine:** Introduction of the new Workflow Process engine based on the Red Hat PAM solution. With this new powerful capability, the Infinity Onboarding app enables banks to visually configure their business process with System Tasks, Human Tasks, End-Customer Actions, or Business Rules/Calculations.
- **Consuming Origination Data Microservice:** As a next step into the definitive architecture, the application stores all the application data in the Origination Data Microservice (ODMS).
- **Event Store, Adapter Framework and Generic Config Microservices:** Consumed Event Store, Adapter Framework, and Generic Config Microservices as part of the new Infinity architecture. These microservices are used to store data events and route them as HTTP calls to Fabric server so that any updates to microservice can be notified to other components like Red Hat PAM.
- **Workspace Solution:** Introducing Workspace solution built on top of the new architecture and integrated into the Microservice framework with the Task Management capability. Still keeping the UI from previous versions, the new Workspace is a beta release in 2021.01 and will have a unique design and user experience in the future release with additional capabilities.



- **User Action:** This is still a PoC and a crucial capability where the Workflow Process engine and Workspace together allows banks to connect all users on an origination journey using Infinity Onboarding framework. The module will have its full version in the future release.
- **Identity Scan:** A revamped version of the Identity Scan is introduced. Also introduced Selfie Verification already integrated with AuthenticID. Besides the out-of-the-box integration, the solution includes a complete set of error handling capabilities and a new decision model considering the identity and verification via Scan and Selfie. Desktop breakpoint support comes on a future release; turned off ID doc upload as per security team recommendation.
- **Enrollment:** Adopted the revised enrollment process prescribed by Infinity digital banking. Co-applicant enrollment is disabled and will be enabled in a future release.
- **Keycloak:** Adopted Keycloak as an IDM for new workspace solution as Spotlight application adopted the same and adopting the new IDM is a must.
- Rewritten Experience APIs to adopt the new architecture.

What's New in 202104

The following features have been introduced in Infinity Onboarding:

- **Application Renamed as Infinity Origination** - The application is renamed as Infinity Origination and the first aspects of Lending is introduced.
- **Infinity Workspace Application** - Introducing the new Infinity Workspace application. It is built on top of the new architecture and integrated into the microservice framework and is highly configurable. With a completely new UX and UI built on top of the Temenos Design System, it paves the foundation for bank's User Agent modules in the application, and even for future third parties such as Brokers, Dealers, and more. The new modules are:
 - **Application Management** - Gives a complete 360 view of the application in all its important aspects, such as:



- Application Data
- Applicant(s) Info
- Tasks (created automatically by PAM)
- Customer Actions (created automatically by PAM)
- Selected Products
- Documents
- Task Management - Gives an easy framework for the User Agents to execute their tasks. Supported tasks are:
 - System Error
 - Decision Tasks
 - Customer Actions Tasks
- App Configuration - Configure the Infinity Workspace, quickly adding or removing features on the app. This app can be launched from the Spotlight application using the Workspace menu item on the left navigation bar.
- **Additional Information (Customer Actions)** - The first version of this crucial capability along with the Workflow Process engine (PAM) and Infinity Workspace, allows banks to raise questions automatically to end-customers, gather their answers using the self-service app, and proceed with validations at Infinity Workspace - 100% configuration and no need to code or build/deploy. A complete E2E solution that will save considerable time of the bank's staff members, increases data quality, and importantly, delivers a fantastic user experience to end-customers. Note that in the current release, this module supports only questions post-submission. In the future release, it will also support pre-submission scenarios. The supported data types in the current release are:
 - Document
 - Text answer
 - Currency answer
 - Numeric answer
 - Radio
 - Single selection on the dropdown list
- **Lending Space** - Introduction of the first version of the credit cards, taking the application to the Lending space. As an MVP solution, it allows the



banks to get applications for Credit Cards, including few configurable attributes such as:

- Requested limit
- Protections - It includes a few enhancements on the application processing, still as an MVP solution, to take care of Credit Card applications.
- **Adopt New Microservices** - Adopted Document MS and Entitlement MS - for uploading and downloading documents and entitlements respectively.
- **CSS3.0 Compliance** - Achieved CSS3.0 compliance by adopting the latest features rolled out in the Quantum 9.2.x version.
- **Accessibility (A11y) Enhancements** - This version includes the first set of Accessibility (A11y) enhancements, putting the application one step closer to the WCAG certification: Addressed the following problems:
 - 1.4.11 Non-text contrast (Level-AA)
 - 2.4.7 Focus visible (Level-A)
 - 1.4.3 Contrast minimum (Level-AA)
 - 1.1.1 Non-text content (Level-A)
 - 3.1.1 Language of the page (Level-A)
- **Infinity Origination BlackBelt team** - In a partnership between Product, Services, and Training teams, introduced the Infinity Origination BlackBelt team as a group of servicing architects to support projects. The Blackbelt team will get advanced training on all solution components and support local demands for projects and the BSG or Partners.
- **Integration with Salesforce (SFDC)** - Introduced the out-of-the-box integration with Salesforce (SFDC) for existing customers and prospect, in assisted mode or self-service. Based on a combination of Data Synchronization mechanism and CSR mode, the Bank's User Agents, using Salesforce, can take new applications, resume existent applications, or even process submitted applications using a combination of SFDC and Temenos technologies.

Infinity Spotlight

Infinity Spotlight application is used to set up and maintain customer and



employee-related information and to configure the behavior of digital banking applications associated with this information.

What's New in 202007

The following features have been introduced in Infinity Spotlight:

- **Ad Management**

- A new campaign type, pop-up campaign is introduced. FIs can create pop-campaigns from the Spotlight application. The new campaign is designed to support around 15 screens in mobile banking and 30 screens in online banking.
- Segments functionality is now a standalone component (earlier part of campaign creation flow) and allows an FI to create multiple segments and use them for various campaigns.
- An FI can display relevant messages simultaneously on the pre-login screens of online and mobile banking applications using the campaign manager's in-app campaign functionality.

- **Secure Messages:** Enhanced to notify customers through available channels when they receive a secure message.

What's New in 202010

The following features have been introduced in Infinity Spotlight:

- **Customer Due Diligence:** Ability to capture basic due diligence information for a customer by the bank staff. This includes citizenship/tax, employment, and account usage information.
- **Products:** Ability to manage products and marketing information for products offered by the bank. Banks can ingest the product details from the existing core/product management system, and additional marketing information can be appended. The products and related marketing information can be directly created and managed via Spotlight.
- **Reports:** Ability to view, share, and download the reports in Spotlight that are created in Quantum Fabric.



- **Alerts Management:** Revamp of the alerts management to allow the FIs to configure the following:
 - Channels and frequency at various levels (category, group, or alert).
 - Allow the customers to choose communication details (email/phone) other than primary for alerts.
 - Respective online or native mobile banking experience is enabled based on Spotlight configuration.

What's New in 202101

The following features have been introduced in Infinity Spotlight:

- **Alerts Management:** Option to choose the Recipient Type is added at the Alert Configuration level. This configuration determines the list of users to send an alert.
- **IAM integration using Keycloak**
 - Keycloak, an identity and access management (IAM) solution is integrated with Spotlight.
 - All Spotlight users (bank staff) will be created and authenticated via Keycloak.
 - A Spotlight user with relevant employee administration permissions based on the role will be referred to Keycloak admin console for any user administration.
- **Service Definition Configurations**
 - A Financial Institution (FI) can create a service definition to categorize the customer base based on various segments - Retail, Sole Proprietor, Partnership, LLC and more.
 - The solution gives the flexibility to define these segments and through these the FI can offer set of different feature actions and set limits against them to customize the offerings.
- **Contracts:** Contracts allow to link several customer records together.
- **Customer Role**
 - A bank staff member can create roles which are applicable to contracts belonging to a service definition.



- A role can be associated with one or more service definitions of the same type.
- Features belonging to the same role type along with their limits can be added to the role.
- **Online Banking User Enrollment**
 - A bank staff member can now directly search and view basic details of customers who do not have an online banking profile via the customer management search.
 - A bank staff member can enroll the user by creating a contract for the user by selecting the service definition and role for the customer ID.
 - Fine-grained account level access, permissions, and limits can be managed by the bank staff members.
- The solution automatically generates and sends the username and activation code to the user post successful enrollment.

What's New in 202104

The following features have been introduced in Infinity Spotlight.

- **Alerts Management**
 - Integration of Infinity Alerts and Transact Alerts.
 - Provided an alert for change in Contact Details.
 - Trigger default alert subscription at user onboarding and when linked to customer (auto subscribe to set of alerts relating to that customer).
 - Enhanced alert system to have a switch between alerts carrier to be able to send messages to EFS for Infinity alerts.
 - Presence of Indicators while Viewing a Transact Alert and List of Alert Groups with Default Frequency and Auto Subscription Enabled.
 - Alert Router Service to handle Transact related alerts via Event Store Microservice.
 - Salesforce integration with Alerts history - Pushing Events to Salesforce from Alert History.
- **Secure Messages** - Bank staff members can create and send new messages to a group of users based on their service type (Retail Banking, Business Banking and so on) and service definition.



- **Implicit/ Explicit Account Access** - While creating a user, the bank staff member can provide Implicit/Explicit access to a Customer ID.
 - If implicit access is provided, any new account opened by the customer is automatically added to the user's online access as well.
 - With explicit access, only the accounts explicitly given access are part of the user's online access.
- **CSR Assist** - CSR Assist mode is enabled for Business as well as Retail users and will also work with third-party authentication providers.
- **Audit Log enhancement for User Management** - Additional JSON data, the request and response parameters being logged in for User Management scenarios is provided.

Infinity Corporate Origination

Infinity Corporate Origination solution simplifies business and commercial lending origination journeys. Through the infinity platform, the solution is designed to fit the market need for digital and automated lending experience, providing efficiency in the process, and maximizing customer relationships. This solution is a foundation to corporate lending, on which further developments will be made. The purpose of this initial release is to showcase the capabilities of the Infinity platform to handle a more complex setting.

What's New in 202010

The following features have been introduced in Infinity Corporate Origination:

- **New Onboarding Request (with save and resume):** Capturing all relevant information about the borrower to enable sign them up in the system. This includes Borrower Information, Facility, Related Parties, Collateral, and Upload Documents.
- **Manage Tasks:** Creating and managing the tasks throughout the lending life cycle, delegating to teammates, and setting deadlines.
- **Entity Overview:** The following entity and related information is captured in this section. Information enrichment happens throughout the different stages of the lending life cycle. Data is persisted in the Party MS.



Add/View Address

- Add/View Contact
 - Add/View or Select existing Collateral
 - Add/View Narrative
 - Add/View or select existing entity as Related Party
 - Add/View Covenant
- **Request Overview:** The following request and related information is captured in this section. Information enrichment happens throughout the different stages of the lending life cycle. Data is persisted in the Loan Origination Service (LOS) microservice.
 - Add/View Single Facility
 - Update Facility
 - Add or Select existing Collateral
 - Add/View Document
 - Add/View Narrative
 - Add or Select existing entity as Related Party
 - Add/View Borrower Fee
 - Add/View Decision
 - Add/View Condition
 - Add/View Draw Restriction
 - Add/View or Select existing Covenant
 - Add/View Compliance
 - Add/View Checklist and Task
 - Update Task
 - **Facility Overview:** The following facility and related information is captured in this section. Information enrichment happens throughout the different stages of the lending life cycle. Data is persisted in the Loan Origination Service (LOS) microservice.
 - Add or Select existing Collateral
 - Add/View Document
 - Add/View Narrative
 - Add or Select existing entity as Related Party
 - Add/View Borrower Fee
 - Add/View Interest Pricing



- Add/View Draw Restriction
- Add/View Decision
- Add/View Condition
- Add/View Funding
- Add/View or Select existing Covenant
- Add/View Compliance
- Add/View Checklist and Task
- Update Task
- **Placeholders:** The following features are available as placeholders in the current release and planned for implementation in future releases.
 - Dashboard Graphs
 - Global search bar
 - Contextual menu Edit and Delete options
 - Entity Document Upload
 - Entity Sanction
 - Entity Risk Rating
 - Entity Credit Request History
 - Entity Limit
 - Entity Integration Account
 - Entity Service History
 - Entity Exposure History
 - Request Financial Ratio Result
 - Request Limits including Manage Limits
 - Request Risk Rating
 - Request External Service
 - Facility Risk Rating
 - Facility Settlement Status.

What's New in 202101

The following features have been introduced in Infinity Corporate Origination:

- **Infinity Corporate Origination Productized:** The primary update is a productized release of the Corporate Origination application instead of a



sales tool.

- **Introduction of Redhat PAM JBPM Integration**

- Workflow and state-engine are the foundations of a successful Origination solution. This release sees the transition of the Corporate Origination application and all current and future origination releases from Quantum Fabric Workflow switch to Redhat's Process Automation Manager (PAM) and Decision Modeling Notation (DMN) architecture. This is an enterprise version of the open source jBPM tool, a BPMN2 compliant process workflow tool. - This introduces new functionality such as parallel workflows, sub-processes, state monitoring, and a degree of case-management capability amongst others.
- Quantum Fabric will remain as an orchestration tool for the various integration and orchestration services that are still needed to communicate with the wider infinity stack.
- Additional features will be introduced as this new technology becomes integrated with the wider infinity architecture.
- **Edit and Delete Features:** Since the Corporate Origination application is being productized, certain crucial features have been included to enable editing of various fields and sections within it, giving flexibility to the RM, Underwriter and Ops to make changes to sections of the application. This can be done at the below areas:
 - Onboarding Journey
 - Request Overview
 - Facility Overview
 - Entity Overview
- **Purpose Inclusion:** Structured hierarchy extended to purpose. Request (application/case) → Purpose (Product grouping) → Product (Multi-product/multifacility enablement).
- **Transact Integrations:** Transact related integrations to enable the completion and fulfillment and closing of a lending product has been completed. Specifically, an Arrangement lending product will be generated within Transact.



- **Marketing Catalog Integration:** Corporate Origination application is now connected to Marketing Catalog microservice to obtain list of products within Transact or any other core upon implementation.
- **LOS MS Enhancements (Edit/Delete API and Extension Data):** API enhancements to support edit and delete functions, as well as the extension capability enables it to be able to be used for country models/client implementations, where additions at an L2/L3 level are inevitable.
- **Search Capabilities**
 - Search capabilities by Request ID and Name (Entity) are supported in global search.
 - Entity search supports individual and business entities based on ID or name.

What's New in 202104

The following features have been introduced in Infinity Corporate Origination:

- **Supporting Multi Facility Capability**
 - Enhancing the Corporate Origination application to support more than one facility within a Request.
 - Decoupling the Request and Facility Stages.
 - Each Facility to have its independent journey post Approval.
- **Supporting Group Hierarchies**
 - Support processing of application with Entity Type as “Group”.
 - Support multi-facility for Groups.
 - Support Entity Overview for Groups like Entity Overview screen with menus and sub menus needed for the group.
- **Risk Rating**
 - Supports Risk Rating feature for Entity.
 - CRUD operations to support Internal Ratings.
 - Supports Adjustment Rating feature where user can “Adjust” the actual rating.
 - Supports viewing Rating History.



- **REDHAT PAM - Task Enhancement**
 - Capability to create Team Tasks.
 - Introducing “Claim” feature where user can claim a task from the Team Task.
 - Support “Reassign” where a user can reassign own task to another user.
 - Introducing a new Task status, “Pending”, which denotes the task is yet to be started by the user.
 - Enhancement in task status by adding a category called “Failed” for human tasks which denotes that the human task has failed while completing criteria.
- **LOS Microservice Enhancements**
 - API enhancements to support multi facility functionality.
 - API enhancements to support Group Entities.
 - API enhancements to store and retrieve Risk Ratings from CDD Microservice.
- **Search Capabilities** - Enhancing the search capability to support Entity Type- “Groups” based on ID or name.
- **Onboarding Enhancement**
 - Capability to select a Purpose for Request.
 - Capability to select a currency for Request, which can be different from facility currency.

Infinity Components

Infinity components are the building blocks of the digital banking application. These are self-contained entities that represent a business module such as accounts, transaction details, and beneficiary management. They support dynamic and responsive user interfaces across multiple channels – mobile, tablets, and desktops.



What's New in 202101

The following components are available in this release:

- Account Summary on Mobile Native
- Transactions List on Mobile Native
- Enhanced version of Transaction List on Responsive Web
- Transfer Activities on Mobile Native
- Transfer Activities on Responsive Web

What's New in 202104

The following components are available in this release:

- Manage Bill Payees on Responsive Web
- Manage Bill Payees on Mobile Native
- Unified Transfers flow – Create Transfers on Responsive Web
- Unified Transfers flow – Create Transfers on Mobile Native
- Unified Transfers flow – Add Beneficiary on Responsive Web
- Unified Transfers flow – Add Beneficiary on Mobile Native

Infinity Wealth

This Infinity release brings a new business solution: Temenos Infinity Wealth.

Temenos Infinity Wealth is a digital investment solution that provides a complete digital customer experience for servicing wealth products from retail and mass affluent customers up to High-Net Worth Individuals. The solution offers a next-generation investment experience that allows financial institutions to engage with investors easily and conveniently in the digital age. Investors can access their investment products wherever they are, react fast to market changes and be in complete control of their portfolio using self-service capabilities and real-time data. The solution supports financial institutions to digitalize their wealth management service, and at the same time enables banks to confidently access the affluent market and convert savers to investors by digitally servicing long-



term investment products at low cost.

What's New in 202104

The key features of this first delivery include:

- **Customer Dashboard**
 - Accounts summary
 - Account details
 - Holistic financial view
 - Savings, Checking and Investment accounts
- **Portfolio Servicing**
 - Holdings, P&L, Allocation
 - Position/Product detail
 - Transactions
 - Account movements
 - Performance
 - Reports & statements
- **Securities Orders**
 - Product selection
 - Product details
 - Order type and validity
 - Watch list
 - Trade checks
 - Order blotter
- **Cash Accounts**
 - Multiple currency accounts
 - Account balances
 - Currency Exchange
- **Market Data**
 - Integrated Market data
 - Top News / Stock News
 - Indices



- Pricing charts
- Pricing exchange data
- Documents PRIIPS/KIDS
- Currency rates

These new Infinity Wealth components are included in the Temenos Infinity Digital Banking customer servicing mobile native and responsive web applications. They can be used standalone or combined with other components such as Retail Banking. As with all Infinity components, access to Wealth features is driven by the user configuration defined with Spotlight.

Infinity Wealth components are available standalone with default mock-data, ready for integration to any third-party portfolio management and core banking systems. They also come pre-integrated to Temenos Transact for those Banks using the full Temenos software stack.

An optional out-of-the-box integration to a leading Market Data Provider is provided for banks who wish to offer a superior customer experience with integrated near real-time data feeds.



Microservices

Campaign Microservices » Displaying Campaigns as Pop up Messages

Available from:**202007**

Campaign microservice is now enhanced to store or retrieve the additional details related to profiles and displaying campaign in a pop up window.

Marketing Catalogue » Hierarchy of Product Catalogue in API Responses

Available from:**202007**

Marketing Catalogue Microservice is enhanced to maintain the hierarchy of the product catalogue in API's responses. The hierarchy of product catalogue in API responses will be in the following order:

- Product Line
- Product group
- Products

Party Microservice

Available from:**202007**

Party Microservice is enhanced with the following:

- The Health Check feature monitors the internal health of the party application.
- Enabling Authentication using JWT for the Docker and J2EE servers.
- Migrated the Azure server to Mongo DB.
- In addition to the legal identifier, a user can also save the alternate identifier to the PartyIdentifier functional group.



- The primary key of the TaxDetails functional group is auto-generated.
- A new reference ID type, identityType is added to the ReferenceTables functional group.

Corporate Loan Origination Service (LOS)

Available from:**202010**

Corporate Loan Origination Service (LOS) microservice enables lending facility for a corporate customer under bilateral lending arrangement. The LOS microservice helps the banks perform tasks/flows involved in Corporate Origination. It also facilitates to orchestrate and capture all the related information such as borrower details, parties involved, request details, facilities and more.

Document Storage

Available from:**202010**

Document Storage microservice provides the virus-free documents hosting capability for Infinity and core banking system. Under the hood, it connects the various Document Management System (Currently being Apache Sling and will be adding EFS AutoForm DM soon) and provides a set of common APIs to achieve a generic Document Storage solution that is vendor and core agnostic.

Receipting

Available from:**202010**

Receipting microservice generates a small static PDF receipt from the provided form definition and data payload. This supports HTML pages (Maestro forms) and PDF overlay (Acroforms). If multiple packages are provided, then this service concatenates the receipts together.



Due Diligence

Available from:**202010**

Due Diligence provides information concerning the intentions of the customer regarding the usage of services provided by the bank. The banks can assess the risk based on this information provided. These risks include identity fraud, money laundering, and terror financing.

Due Diligence microservice enables the banks to handle local regulations regarding the intentions of the customer on how he intends to consume the services of the bank versus how these are consumed. Different geographies have different regulations in terms of money movement, tax rules, etc. The Due Diligence microservice has a superset of this information and is able to support local regulations across different geographies.

The Due Diligence microservice provides the following key functions:

- Financial Information
- Source of Funds
- CDD Assessments Events
- Party Intentions and their related reference data entities

Service Request

Available from:**202010**

Service Request microservice is a generic order management system. It helps to capture the customer's different service requests that are raised by the Retail Banking channels. The microservice maintains the life cycle of all the service requests. The service requests involve services such as New Cheque Book, Stop Payment Request, Dispute transactions, and Block Debit Card.

Savings Pot

Available from:**202010**

Savings Pot microservice provides an independent cloud-enabled solution for managing savings pot information that is required for both the front office



(Infinity) and back office (could be Transact or any other back-office system of the bank). The distribution service of Savings Pot microservice is container-based and can be deployed independently irrespective of any back-office system of the bank.

Origination Data Storage

Available from:**202010**

Origination Data Storage microservice implements the storage features offered by Journey Manager. This is mainly because the requirements will come from the development of custom user Journeys and Journey Manager has been developed from many years of writing these journeys and it makes sense to learn and expand these features rather than start from scratch.

Marketing Catalog

Available from:**202010**

Financial Institutions typically offer multiple products at a time. Marketing Catalog Microservice is a comprehensive source of system-independent data on product details and marketing content spanning all products in the bank, and capable of consuming products and services outside of the bank. For example, products offered by FinTechs or actual banking products that may be sold and marketed on behalf of banks.

The Marketing Catalog microservice provides the following capabilities:

- Product Line and Product Group details
- Product Information
- Product Feature Details
- Product Image Details
- Product Description
- Purpose
- Notes
- Disclosure
- Terms and Conditions, etc.



Arrangement

Available from:**202010**

The objective of the Arrangement microservices is to store the same bank accounts and external accounts in a designated microservices architecture. If any new account is opened in Infinity, then it will send a request to core banking system and create an entry for it. As soon as the new account entry is created in the core banking system, there will be an impact in the customer account details.

Customer account details are integrated with the Arrangement microservices using a sophisticated Integration framework. Whenever there are entries and new contract created in the core banking system, an event which is configured will pass the details to the Arrangement microservices on an asynchronous manner.

Arrangement microservices provide the following key functions:

- Capture the contract details created by customer
- Capture the payment schedule details for the contract
- Support both Real Time and Near time processing style
- Integrate with multiple systems for processing

Holdings

Available from:**202010**

The objective of the Holdings microservices is to store the accounting entries and customer account balances in a designated microservices architecture. Any transaction initiated in Infinity sends a request to core banking system and creates transactions. As soon as the transactions are created in the core banking system, there is an impact in the customer account entries and the account balances. Customer account entries and account balances are integrated with the Holdings microservices using a sophisticated Integration framework. As soon as the entries and balances are updated in the core banking system, an event which is configured passes the account entries and account balances to the Holdings microservices on an asynchronous manner.



Service Request

Available from: **202101**

Service Request microservice is a generic order management system. It helps to capture the customer's different service requests that are raised by the Retail Banking channels. The microservice maintains the life cycle of all the service requests. The service requests involve services such as New Cheque Book, Stop Payment Request, Dispute transactions, and Block Debit Card.

- **Service Request Statuses Mapping:** Service Request Microservice sends request received from banking applications to various backend systems for request processing and in turn each request receives different responses in different format. Introduced Request status mapping within Service Request Microservice that allows the bank users to configure to send meaningful status values to a customer-facing banking application.
- **Direct Debit:** The cancel direct debit requests are routed via Service Request Microservice.
- **User Preferences and Settings:** Enhancements around adding and updating phone numbers, email address and postal address via Service Request Microservice.

Arrangement

Available from: **202101**

The objective of the Arrangement microservices is to store the same bank accounts and external accounts in a designated microservices architecture. If any new account is opened in Infinity, then it will send a request to core banking system and create an entry for it. As soon as the new account entry is created in the core banking system, there will be an impact in the customer account details. Customer account details are integrated with the Arrangement microservices using a sophisticated Integration framework. Whenever there are entries and new contract created in the core banking system, an event which is configured will pass the details to the Arrangement microservices on an asynchronous manner.



- **User Preferences and Settings:** Enabled an integration with Transact and Arrangement Microservice for Statement Preferences (e-statements and printed statement) of an account from digital banking.
- **Accounts and Statements:** Enhanced the loan accounts overview in Responsive Web and Mobile Native to display relevant fields and mapped with fields in Transact, Holdings, and Arrangements microservice. Account summary functionality exhibits the disbursed amount, outstanding balance, total overdue, current due and due date fields. This helps banks to review the account summary.
- **Interest details:** This functionality now helps banks to validate the dates associated with the interest payment and maturity. This functionality exhibits the fields related to interest rate and the last amount paid details like last payment date, last payment amount, sanctioned amount, sanctioned date, and maturity date.
- **Account Information:** This functionality now helps banks to track and validate the customer and account details, such as customer name, account number, account type and join account names.
- **Schedules:** This functionality now helps banks to track and validate the details, such as due amount, due bills, settled bills, future bills etc.

Holdings

Available from: **202101**

The objective of the Holdings microservices is to store the accounting entries and customer account balances in a designated microservices architecture. Any transaction initiated in Infinity sends a request to core banking system and creates transactions. As soon as the transactions are created in the core banking system, there is an impact in the customer account entries and the account balances. Customer account entries and account balances are integrated with the Holdings microservices using a sophisticated Integration framework. As soon as the entries and balances are updated in the core banking system, an event which is configured passes the account entries and account balances to the Holdings microservices on an asynchronous manner.

- **Accounts and Statements:** Enhanced the loan accounts overview in Responsive Web and Mobile Native to display relevant fields and mapped



with fields in Transact, Holdings, and Arrangement microservice. Banks can now review the account summary. Account summary functionality exhibits the disbursed amount and outstanding balance.

Document Storage

Available from:**202101**

Document Storage microservice provides the virus-free documents hosting capability for Infinity and core banking system. Under the hood, it connects the various Document Management System (Currently being Apache Sling and will be adding EFS AutoForm DM soon) and provides a set of common APIs to achieve a generic Document Storage solution that is vendor and core agnostic.

- **Attachments for Secure Messages:** Enhanced to add an attachment for the Message module in mobile banking and download the attachment from the existing message. Also, integrated with Document Microservice as document storage point.
- **Europe Money Movement Flows:** Added attachments as part of the payment and transfer flows and retrieve the attachments when the user is viewing the past and scheduled transfers. Attachments are stored and retrieved in Document Microservice.

Marketing Catalog

Available from:**202101**

Marketing Catalog microservice provides an independent cloud-enabled solution to manage marketing information of the core banking products. It exposes management APIs to manage marketing information for products managed in the core banks.

- **Loan Simulator:** This API along with the JS file is introduced in Marketing Catalog microservice for loan simulation of non-banking customers. It is possible to have Interest Details with Margin, charges and fees with different tier types, Payment schedules, Reporting details for APR calculation, Basic Interest, and Day basis details. Scripts are introduced for the initial loading of reference data on all the stacks. APIs are introduced to capture basic interest and product conditions.



- **Facility Type:** While creating a loan origination request, the facility type is fetched from the Marketing Catalog microservice. In the current release, the requirement is to display the list items based on Marketing Catalog microservice and product validation will be part of the next release.
- **Marketing Catalog Integration:** Corporate Origination application is now connected to Marketing Catalog microservice to obtain list of products within Transact or any other core upon implementation.

Originations Data Storage

Available from:**202101**

Originations Data Storage microservice is the storage service that implements the storage features offered by Journey Manager.

- **Consuming Origination Data Microservice:** As a next step into the definitive architecture, the application stores all the application data in the Origination Data Microservice (ODMS).

Loan Origination

Available from:**202101**

Loan Origination Service (LOS) micro-service does help the Banks to do different tasks/flows involved in Corporate origination. It also facilitates to orchestrate and capture all the related information like Borrower details, Parties involved, Deal Details, Facilities.

- **LOS MS Enhancements (Edit/Delete API and Extension Data):** API enhancements to support edit and delete functions, as well as the extension capability enables it to be able to be used for country models/client implementations, where additions at an L2/L3 level are inevitable.

Loan Origination Service (LOS)

Available from:**202104**

The Loan Origination Service (LOS) microservice helps the Banks to do different



tasks/flows involved in Corporate Origination. It also facilitates to orchestrate and capture all the related information like Borrower details, Parties involved, Deal Details, and Facilities.

API enhancements in Corporate Origination application:

- Enhancements to support multi facility functionality.
- Enhancements to support Group Entities.
- Enhancements to store and retrieve Risk Ratings from CDD Microservice.

Document Storage Microservice

Available from:**202104**

The Document Storage microservice provides virus-free documents hosting capability for Infinity and core banking system. This is to support the upload of attachment against a journey (In-flight) or any other situation where documents upload/download is required. All files uploaded will be virus checked before they are persisted into the environment. Under the hood, it connects the various Document Management System (Currently being Apache Sling and will be adding EFS AutoForm DM soon) and provides a set of common APIs to achieve a generic Document Storage solution that is vendor and core agnostic.

- Infinity Origination application adopted Document MS for uploading and downloading documents.
- Supports production-ready access control.
- Adds digital banking support.
- Adds Administrator UI API to view the document information.

Entitlements Microservice

Available from:**202104**

Entitlement is a read-only microservice for providing the account details for a specific user ID.

- Infinity Origination application adopted Entitlements MS for uploading and downloading entitlements.



Service Request

Available from:**202104**

Entitlement is a read-only microservice for providing the account details for a specific user ID.

- Infinity Origination application adopted Entitlements MS for uploading and downloading entitlements.

Receipting Microservice

Available from:**202104**

Receipting microservice generates a small static PDF receipt from the provided form definition and data payload. This supports HTML pages (Maestro forms) and PDF overlay (Acroforms). If multiple packages are provided, then this service concatenates the receipts together.

- K8 package released

Originations Data Storage Microservice

Available from:**202104**

Originations Data Storage Microservice (ODMS) implements the storage features offered by Journey Manager. This is mainly because the requirements come from the development of custom user Journeys and Journey Manager has been developed from many years of writing these journeys and it makes sense to learn and expand these features rather than start from scratch.

- K8 package for Docker Stack released.
- AWS and Azure pack released.
- Support to PostgreSQL DB is released for Stacks K8, Azure, and Docker.

|Temenos Transact



| Analytics

DW Export » Unique Record Extraction

Available from: **202008**

The application is now enhanced to support DW incremental extraction, where the `DW.INCR.PRE.PROCESS.SERVICE` writes only the unique record IDs to `DW.EXPORT.WRK.FILE` eliminating the duplicates.

Operational Data Store/Snapshot Data Store » ODS and SDS Support PostgreSQL

Available from: **202008**

ODS and SDS support PostgreSQL database, in addition to the existing databases.

Operational Data Store APIs » Operational Data Store – APIs through Semantic Query Layer

Available from: **202008**

Additional APIs are now introduced into ODS to access different forms of data in Data Lake solution through Semantic Query Layer, which separates the read from the Temenos Transact system.

TDE - Administrator » Data Store Deployment in TDE

Available from: **202008**

Data Store Deployment is a new feature added to TDE to automatically deploy



Temenos Transact applications in DES, ODS and SDS, instead of deploying every application manually.

Analytics Data Store

Available from: **202009**

Analytics Data Store (ADS) provides a data platform for analytics and risk products. ADS is a section of Temenos Data Engineering (TDE) that allows the user to capture and write data from Snapshot Data Store (SDS) to ADS target DB.

Operational Data Store APIs » Operational Data Store APIs through Semantic Query Layer

Available from: **202009**

Semantic Query Layer is used to access the Temenos Transact data from Operational Data Store in data lake solution.

DW Export » Integration of DW with TDE

Available from: **202010**

DW data extraction mechanism is extended to support Temenos Data Engineering (TDE) system, where Temenos Transact data is streamed through the streaming platforms (kafka, kinesis and event hub) to the target system, in addition to CSV extraction and real-time database update. This new functionality provides DW offline (initial load processing) and online (real-time data streaming) services.

TDE - Administrator » Retry and Recovery Feature in Temenos Data Lake

Available from: **202010**

The Retry and Recovery feature is now introduced in TDE, which writes the



failed records, that is, the records that failed to reach the target (Operational Data Store (ODS) or Snapshot Data Store (SDS)) database, to exception topic (configured in the Data Event Streaming (DES) connection properties) after retrying for specific number of times in specific intervals.

Semantic Query Layer » Grouping and Versioning

Available from: **202011**

This functionality allows the user to create multiple endpoints under one API based on business logical grouping. Standard versioning logic is followed to maintain API Framework standards.

DW Integration » DW Integration in TDL

Available from: **202011**

Temenos Data Lake (TDL) interfaces with Data Event Streaming (DES) system, to stream the data from Transact to TDL Data Stores (Operational Data Store (ODS) and Snapshot Data Store (SDS)). This methodology is applicable from Transact version R16 and above. To support Transact versions from R11 to R15, TDL interfaces with DW online, to stream data from Temenos Transact to TDL Data stores (ODS and SDS).

For Transact versions from R11 to R15, TDL can be configured with DW interface by setting the *Transact Integration* field to DW in Data Event Streaming Connection Properties (TDE Admin module). For Transact versions R16 and above, TDL can be configured with DES interface by setting the *Transact Integration* field to DES.

Transact Data Hub » Livy Integration in TDE

Available from: **202011**

Livy Integration is a new feature in TDE, which provides a centralised option to submit and monitor the spark jobs, and control the spark session and context instance.



Transact Data Hub » TDH Code Optimisation

Available from: **202011**

As part of TDH, Code optimisation has been done to improve the performance of data processing from Temenos Data Lake (TDL) landing to Operational Data Store (ODS) and Snapshot Data Store (SDS) database.

The performance challenges faced in Spark Executor and Spark driver have been optimised. The existing checksum functionality has been streamlined for ODS and SDS products.

Analytics Data Store APIs » ADS APIs through GraphQL

Available from: **202011**

Semantic Query Layer is used to access Temenos Transact data from different data stores in Data Lake solution, which will separate the read from Transact system. As part of Analytics Data Store (ADS) model, Semantic Query Layer will have a framework and exposes the GraphQL end point to accept the GraphQL query as an input and process it to access the data from ADS. This generic framework leverages the GraphQL and SQLBuilder libraries to process the GraphQL query and converts them into SELECT statements to retrieve the data from ADS.

As part of initial phase, 15 APIs are released from Holding, Party and Product domains to access data from ADS in Data Lake.

Transact Data Hub » Spark Optimisation, Metrics Collection and Operational Monitoring

Available from: **202012**

The Spark optimization feature in TDH allows users to perform data loading even with minimal infrastructure and upgrade on provisioning of additional resources.



Click [here](#) to understand the technical impact of this enhancement for customisation and upgrades.

Transact Data Hub » Extend Livy Integration

Available from: **202012**

This feature allows automatic deployment of Designer and Scheduler jobs using the Livy server. In this feature, the Designer or scheduler spark jobs are submitted using Livy server to Kubernetes cluster and are monitored using batch-ids generated for each job by Livy server.

Transact Data Hub » TDH Packaging

Available from: **202012**

TDH packaging aims to maintain artefacts in one place, which are common across environments, and to deliver the list of applications applicable for Model Bank and Analytics models. As part of package, this feature releases new shell scripts, DDL and DML template scripts for Docker or Non-Docker environments.

Operational Data Store APIs » Extension of ODS API Landscape

Available from: **202012**

Semantic Query Layer allows you to access the Temenos Transact data from Operational Data Store (ODS) in data lake solution, which will separate the read from the Transact system. As part of this solution, semantic layer will have a framework and exposes the GraphQL end point to accept the GraphQL query as an input and process it to access the data from ODS. This generic framework leverages the GraphQL and SQLBuilder libraries to process the GraphQL query and converts them into SELECT statements to retrieve the data from ODS.



Operational Data Store/Snapshot Data Store » TDL Supports NuoDB Database

Available from: **202101**

Operation Data Store (ODS) and Snapshot Data Store (SDS) are enhanced to support NuoDB database along with Oracle, MS-SQL, Azure SQL and PostgreSQL, which promotes cloud agnostic database support in Temenos Delta Lake (TDL).

Analytics Data Store » ADS DW Process

Available from: **202101**

The following functionalities are updated in the Analytics Data Store (ADS) module:

- The ADS business dates table is renamed as ADSBusinessDate in MySQL and target database.
- You can load the data for the reference tables from CSV files.
- You can stop or interrupt the running ADS data reprocess.
- The column list table in read snapshot is changed to multi-selection check box that allows you to select the required columns.
- The ADS staging table metadata is stored in the metastore that allows the system to automatically map the columns from input component. The required validation are performed while saving.
- The DW load processing time is optimised based on java utilities.
- A user guide is prepared with instructions to create user defined JARs.

These changes make ADS more user friendly in terms of configuration and usage.



Semantic Query Layer » Data Enrichment in Semantic Query Layer

Available from: **202102**

The following features are updated in the Semantic Query layer (SQL) module:

- SQL supports enrichment rules that enriches the resultant data by applying the rules defined for APIs accessed at runtime. The SQL framework enables the below enrichment rule features to design and evaluate the rules for APIs:
 - Replace
 - Alias
 - Concatenation
 - Calculation
 - Condition
 - Substring
 - Split
- SQL uses a new caching mechanism EhCache instead of Ignite, which eliminates the external server dependency retaining the existing caching functionalities (API Metadata, GraphQL Schema, DML and API Metrics caching).
- SQL uses Local API Metadata for accessing an API at runtime, thereby eliminating dependency on Atlas for pre-defined APIs.

NOTE: Atlas is still required for designing the APIs.

Click [here](#) to understand the installation and configuration updates for this enhancement.



Reconciliation » Business Reconciliation in TDE



Available from: **202104**

In TDE, business reconciliation is introduced to reconcile the data between EB Contract Balance (ECB) and Consolidate Asset Liability (CAL). The data from these tables are compared at CONSOL.KEY and ASSET.TYPE levels.

Aggregation and filtration of data in ECB and CAL can be performed separately. The results can be compared for exact match and any exceptions or variances are reported.

Click [here](#) to understand the installation and configuration updates for this enhancement.

Metadata Management and Transact Data Hub » Column Lineage and ADL GEN2 upgrade in TDE

Available from: **202104**

In TDE, the column lineage is introduced to capture the lineage between source and target at column level. This lineage helps understanding how the business entities are traversed through upstream to downstream applications. Also, Azure Data Lake (ADL) storage is upgraded to ADL Gen2 supporting additional storage platform.

Click [here](#) to understand the installation and configuration updates for this enhancement.



Operational Data Store APIs » Extension of ODS API Landscape

Available from: **202104**

Semantic Query Layer now allows you to access the Temenos Transact data from Operational Data Store (ODS) in data lake solution, which separates the read from Transact system. Semantic layer has a framework and exposes the GraphQL end point to accept the GraphQL query as an input and process it to access the data from ODS. This generic framework leverages the GraphQL and SQLBuilder libraries to process the GraphQL query and converts them into SELECT statements to retrieve the data from ODS.

TDE-Designer, TDE-Administrator and Analytics Data Store » Risk Profitability in TDE

Available from: **202104**

TDE Platform is extended to support Risk profitability while storing the dataset corresponding to risk models like Probability of Default and Loss Given Default in Analytical Data Store (ADS).

The classification rules are defined in the TDE system. These rules are utilised in the data flow for mapping portfolio definitions in ADS. The End of Day (EOD) calculations for PD and LGD models are scheduled and updated in ADS tables.



Application Framework

System Core » Device Type Information

Available from: **202005**

Device type used for the transaction is now captured in the transaction details. This captured information is passed to Temenos Transact with the OFS Header or IRIS request, which will be included in the transaction audit information.

Process Orchestration » Grouping Prerequisites within Parenthesis

Available from: **202006**

Process Workflow definition now allows the users to define the decision logic and enclose prerequisite activity, status and rules within parenthesis.

System Core » Scheduler to manage services during COB

Available from: **202006**

This feature allows bank to manage the start or stop for services during Close of Business (COB) and manage the number of agents. This does not require the bank to add that job(s) into the respective COB batch records.

System Core » IRIS R18 APIs for Service Automation

Available from: **202006**

This functionality allows the third party systems to work with the service related



activities such as number of jobs completed, total number of jobs and percentage of completion.

System Core » Alert Generation for Expiring Documents and Removal of Posting Restrictions



Available from: **202007**

The customer alert functionality is now enhanced to generate alerts on all days during the notice period either when a document is created during the notice period or if *End Date* in `CUST . DOCUMENT` is changed.

System Core » Handling Corrupt Contract during Close of Business (COB)



Available from: **202008**

Now, the tSM can instruct the system to log off that specific agent, which is continuously looping, identify the contract, which caused the looping and remove it from the `JOB LIST/QUEUE`. This enables the COB process to get completed.

System Core » Reversal or Replacement of Records during File Upload



Available from: **202008**

This functionality enables the customers to reverse or replace a record during file upload. To enable this functionality, the *Pre Process Api* field is added in `EB . FILE . UPLOAD . TYPE` to attach the jBC API from `EB . API`. The *Reformat Plugin* routine now allows the user to return the operation with two values—`ACTION-REVERSE` and `ACTION-REPLACE`.



System Core » Scalability in COB

Available from: **202009**

This feature introduces a scalability mechanism where an external orchestrator such as Kubernetes identifies the workload based on various attributes and issues new containers using scale metric from Temenos Transact.

System Core » Elastic Scaling of Agents

Available from: **202009**

This feature allows users to capture elastic fields in workload profile for dynamic agent allocation for non-cloud implementation. It is fully compatible with Multi-Server configuration and supports distinct configuration for the multi-servers independent of each other.

System Core » Multiple Alternate Reference Definition

Available from: **202010**

This functionality enables users to define multiple alternate keys for a multi-value field in the `EB.ALTERNATE.KEY` application. Using this functionality, users can now define alternate key for both single and multi-value fields.

System Core » Master Data Access Layer

Available from: **202011**

In Temenos Transact, a new framework called Master Data Access Layer (MDAL) has been added to access the data required for a Transact application from an external system (like micro-services) using REST API.



Security Management System » Creating Policy with Enhanced Obligations

Available from: **202102**

Enhanced obligations provide a greater flexibility in designing the obligations.

With this feature, the policy editor can:

- Create policies with multiple filter conditions inside a single obligation group.
- Define the grouping operator between the filter conditions.
- Define the grouping operator between the obligation groups.

You can create a policy with enhanced single or multiple obligation groups.

Infrastructure » Customer Data Access Logging



Available from: **202103**

Temenos Transact and TPH have a structured logging mechanism of all user activities. This mechanism is configurable in a `USER` profile, which ensures that all activities of the user are logged for audit purposes. This information is also available for extracts and reports, if required. The logging is now extended for every `CUSTOMER` involved in a transaction or Enquiry. The feature to log additional (customised) information for each of those `CUSTOMERs` is also available for L3 customisation. This customising feature is currently available only for jBC and not for Java.

Click [here](#) to understand the technical impact of this enhancement for customisation and upgrades.

Click [here](#) to understand the installation and configuration updates for this enhancement.



Temenos Transact Upgrade » Upgrading Container in Online Mode with Elastic Scalability



Available from: **202104**

In tSM-less environment, a new mechanism is introduced to facilitate online upgrade service orchestration that provides a mechanism to downscale the pods in the production image during switch over. To provide this mechanism, `TSA . PARAMETER` is enhanced to allow you to specify upgrade and inactive image.

This feature allows Upgrade services while upgrading images and prevents BAU services till switch-over period. Thus, providing a smooth exit during switch-over period and automatically allowing BAU services in upgrading the server post switch-over period.

System Core » Transact Standards 2021 (TS2021)



Available from: **202104**

From R21, a new module named **Transact Standard 2021 (TS2021)** has been introduced that governs the product standards applied to clients. After R21, the TS2021 automatically gets added during Initial System Build (ISB) and it is thus mandatory for implementations that start with R21 and above. As part of TS2021, COB now only considers Application, System Wide, Reporting, and Start of Day as valid stages. On completion of COB, a new service called `ONLINE . SERVICE` is triggered and it considers only Online stage and orchestrates the job defined to run in Online stage. With the separation of Online Stage, the product redefines how a COB is run and leverages the task of running the Online stage Batch/Job under the `ONLINE . SERVICE`.



System Core » Managing Packager Auto Service

Available from: **202104**

The `TSA.PARAMETER` table is enhanced with a new field called *Package Deployment* to facilitate the banks to manage services during package deployment mode by tSM. This field acts as a switch to decide whether to run only the deployment services or all the services. With this new functionality, service framework stops all the services from running except the deployment service during deployment mode without changing the service control manually.

System Core » Auto Unique ID Generation

Available from: **202104**

A new field called *Database Unique* is now introduced in the `AUTO.ID.START` table for generating unique ID. When the *Database Unique* field is set, the underlying platform framework (TAFj) generates the sequential ID for Transact and facilitates to generate both Numeric and Alphanumeric sequences, depending on the field information in Base Table of `AUTO.ID.START`.

Following are the benefits:

- For Customer and Account application, the framework always checks the ID generated in Live, NAU and HIS files to ensure that the new sequence is unique, and no existing Customer or Account number is reused.
- While generating key, platform framework (TAFj) maintains details such as last generated ID for applications.

System Core » Transact Monitoring Using Grafana

Available from: **202104**

The `SPF` table is enhanced with a new option called *Ext* in the *Maint Tec Output* field to dynamically log the information of various events (online and Batch



transactions) and the TAFJ events to Grafana using Platform framework function TEC events. Grafana is a third-party external monitoring tool.



| Banking Framework

Generic Accounting Interface » Statement Sequence

Available from: **202005**

This functionality ensures that the statement entries (for CSM RESPOST and CSMBULK RESPOST) on the customer account are displayed in the order that the funds are reserved, even though the BOOK time differs from the RESERVE time because of the momentary delay in booking.

Transaction Recycler Process » Retry Processing for Settlement Account Updates

Available from: **202005**

This enhancement allows the Recycler process to consider the settlement account updates (done at the level of AA Settlement Property) for new and old retry requests, which are still in pending.

Delivery » SWIFT Standards MT Release 2020 – Universal Confirmation

Available from: **202005**

Temenos Transact now supports SWIFT (Society for Worldwide Interbank Financial Telecommunication) universal confirmations. Universal confirmations are basically payment confirmations, which provide certainty that a particular payment from the ordering customer has been duly received by the beneficiary customer.



Click [here](#) to understand the installation and configuration updates for this enhancement.

Accounts » Account Switching Service

Available from: **202005**

This feature allows the users to register a switching instruction from an existing Temenos Transact account to an external account opened in another bank. The switching information is retained in the system for a specific period of time (validity period).

NOTE: The scope of the ACSWIT module has been widened to support an automated Bank Switching Service in line with the 'switching service' (for payment accounts) obligations under the Payment Account Directive. This capability has been enabled in addition to the existing feature offered by this module.

Click [here](#) to understand the installation and configuration updates for this enhancement.

Accounting Unit » Decommissioning an Accounting Unit

Available from: **202006**

Temenos Transact now allows customers to decommission an existing accounting unit. The `AU . PARAMETER`, `EB . TNSFER . COMPANY` and `EB . CHANGE . COMPANY` applications have been enhanced to support the decommissioning process.



Accounts » TPH–Temenos Transact – Demand Deposit Account Integration

Available from: **202006**

The External option is added to the *Update Activation File* field in the `ACFA.TYPE` application to support the creation of an Integration Framework event when a Funds Authorisation record is processed in the system.

Limits » Liability Structure for Limit Sharing Group

Available from: **202006**

This functionality allows users to define a Liability Limit structure using the `LIMIT.SHARING.GROUP` application. This application now accepts Limit Products with alphanumeric key.

Accounts/General Ledger » Internal Funding Position (IFP) Memo Balance

Available from: **202007**

Temenos Transact now allows banks to include a memo balance type (reporting) in addition to a base balance in the Cover Control process, define and perform two cover controls for an arrangement account based on different balance types for the same debit transaction and attach a bank limit or internal limit amount to a cover control type.

Click [here](#) to understand the technical impact of this enhancement for customisation and upgrades.



Loan Loss Provisioning » Multi-GAAP Provisioning

Available from: **202007**

The Provisioning (PV) module in Temenos Transact is enhanced to define different risk profiles, provision rates and accounting details to support multiple Generally Accepted Accounting Principles (GAAP) for the same contract.

System Tables » Exit Status for Prospects and Customers

Available from: **202007**

Temenos Transact now allows banks to mark customers or prospects who have exited their role with the bank.

Limits » Corporate Lending Club Loans: Facility Limits

Available from: **202007**

The `LIMIT.REFERENCE` application in Temenos Transact has been enhanced with a new limit type (Standalone), *Suppress Accounting* field and *Third Party Exposure* field to support Facility Limits for Club Loans.

Standing Order » Joint Beneficial Owners as Ordering Customers in STO

Available from: **202007**

For AA accounts with multiple owners, Temenos Transact now accepts a joint beneficial owner (different from the debit customer) of the account as an ordering customer in the `STANDING.ORDER` (STO) application.



System Tables » ISO Alpha-3 Country Code

Available from: **202007**

To support the widely used ISO 3166 standards, the `COUNTRY` application in Temenos Transact now allows users to define the alpha-3 country code, three-digit numeric code, and reporting country name for each country.

System Tables » Customer Spread in Percentage

Available from: **202007**

This feature provides flexibility to the bank to set default, treasury and customer spread in percentage as basis points (BPS) for each currency market. Using this value, Temenos Transact calculates the actual spread rate and populates it in the respective fields in the `CURRENCY` application (price table).

Collateral » Exchange Rate in `CO.ASSET.DETAILS` Table

Available from: **202008**

This functionality allows Temenos Transact to consider the revised exchange rate for collateral valuation, thereby giving the latest value of the collateral. The *Exch Rate* field is added to the `CO.ASSET.DETAILS` table to store the exchange rate for each asset defined under a collateral.

Click [here](#) to understand the installation and configuration updates for this enhancement.



System Tables/Delivery » Structured Address based on ISO 20022 Payments Standards

Available from: **202008**

Temenos Transact now allows users to capture an address based on ISO 20022 standards. The `getCustomerAddressOutput` API, which is used by Temenos business applications (such as Temenos Payments Hub (TPH) and Payment Orders) and other external channels, retrieves and returns the customer main address in a structured and/or unstructured format.

Click [here](#) to understand the technical impact of this enhancement for customisation and upgrades.

Centralised Reference Data » Structured Creditor Reference

Available from: **202008**

To comply with the ISO Standard ISO 11649 and support Structured Creditor Reference, the `RD.GENERATE.CREDITOR.REF.API` and `RD.VALIDATE.CREDITOR.REF.API` framework APIs are introduced in Temenos Transact to generate and validate the Structured Creditor Reference using the `ENQ RD.API.STUCTURED CREDITOR REFERENCE.1.0.0` enquiry.

Collateral » Collateral Allocation

Available from: **202008**

When banks use collateral from the pooled security, collateral allocation priority has to be maintained at the collateral record level to allocate among different products. The *Contract Seq Rtn* field is added to the `COLLATERAL.PARAMETER` application to allow the users to attach a contract sequence routine.



Loan Loss Provisioning » Collateral Mitigation and Provisioning Changes

Available from: **202008**

This functionality allows banks to:

- Define an API in the *Collateral Amt Api* field in the `PV.PROFILE` application to fetch the updated and latest collateral value, if there is any change in the collateral amount.
- Define the cut-off factor at the contract level in the `PV.ASSET.DETAIL` application to calculate the base balance.

Click [here](#) to understand the installation and configuration updates for this enhancement.

Limits » Updating Limit Exposure through `LIMIT.UPDATE.SERVICE`

Available from: **202009**

The exposure against a Limit can be updated in near real time using the `LIMIT.UPDATE.SERVICE`. To enable this functionality, the *Delay Txn Update* field is added to the `LIMIT.PARAMETER` application.

System Tables » Defining Beneficiaries for Payment-Related Services

Available from: **202009**

This functionality allows users to manage payees used for payment purposes by defining the beneficiary customer using an ID, BIC or name as separate attributes.



Cheque and Draft Issue Management » Charge Amount, Exchange Rate and Cheque Return Updates

Available from: **202009**

Temenos Transact now allows users to:

- Capture the charge amount when a cheque is marked as cleared.
- Capture the exchange rate at the time of realisation of drafts with foreign currency.
- Return an already cleared cheque.
- Modify the rejection reason for a returned cheque without increasing the return count.

Limits » Temporary Limits Exposure Enquiry

Available from: **202010**

The Risk & Exposure Overview (CUSTOMER.SCV.CHECK) enquiry has been enhanced to display the total temporary (sub-allocated) amount for each record in `LIMIT` in the Customer Limit Exposure section. This functionality allows the users to view sub-allocation details directly from the Risk & Exposure Overview enquiry.

System Tables » Creating Company through an Online Service

Available from: **202010**

The `COMPANY.CREATE` application has been changed to an H type template to remove the dependency between the `COMPANY.CREATE` and `COMPANY` applications. The user must create a record in `COMPANY.CREATE` manually. The `COMPANY.CREATION.SERVICE` automatically populates the data from this record in the `COMPANY` application. The status is updated in the *Status* field



in the COMPANY application during each stage of the process.

Temenos Transact now allows the creation of a company through an online service.

System Tables » Support for Request to Pay in Proxy Directory

Available from: **202010**

This functionality allows the banks to:

- Capture the payment scheme and role while registering proxy identifiers.
- Obtain the details of the active proxy identifiers through an API.
- Register or deregister a proxy identifier using APIs.

Accounts » Capturing Receiver BIC in Charge Request for MTn91 Messages

Available from: **202010**

The Charge Request functionality now allows the user to capture the Receiver BIC of the financial institution that does not have a nostro or vostro relationship with the bank. This is applicable only on MTn91 message series (request for payment of charges, interests and other expenses).

Transaction Restriction » Transaction Stop Instruction for Next Payment Only

Available from: **202011**

Temenos Transact now allows users to set up a stop instruction to be applied only to a single DD transaction posted by TPH against a customer's account.

To enable this functionality, the *Applied to* field is added to the TZ.TRANSACTION.STOP.INSTRUCTION application.



Direct Debit » Payment Currency Validation for Multicurrency Accounts

Available from: **202011**

This functionality allows TPH to send the booking request directly to SAP in the payment currency, for multicurrency accounts. The DDA component enables the bank to parameterise a local API which is invoked before the `getFullAccountInfo` API returns the details to TPH and it can change the core decision regarding the payment currency. Based on the details supplied by the local API, TPH decides if it can send the booking requests to SAP in the payment currency or account currency.

Direct Debit » Defining Direct Debit Collection Limit for a DD Mandate

Available from: **202011**

The Direct Debit Mandates (`DD.DDI`) application has been enhanced to allow the users to set up a limit for the maximum number of direct debit collections that can be posted to a customer's account by a specific mandate within a specific period of time.

System Tables » Creating Beneficiaries for Customers on Standalone and Integrated Platforms

Available from: **202011**

The `BENEFICIARY` application now allows users to create and use beneficiaries for customers who are defined either on a standalone platform (for example, Temenos Payments Hub) or on an integrated platform.

When a user creates a beneficiary, if the customer is defined on a different platform than `BENEFICIARY`, the system validates if the owning customer of



the record exists.

Collateral » External Collateral Assets

Available from: **202012**

External assets such as assignments, floating charges, fixed charges and life insurances are not maintained in Temenos Transact core applications. The information related to these external assets may be maintained in bank-specific local tables. These external assets can be provided as collateral for securing a certain facility or liability in Temenos Transact. Temenos Transact has been enhanced to allow users to configure external assets as collaterals, to be processed by the Collateral module.

Collateral » Other Internal Collateral Assets – Immovable Property and Mortgage

Available from: **202012**

Temenos Transact supports assets such as deposit accounts (AD/AR/AC), guarantees (MD), money market deposits (MM) and customer portfolio (SC) as collateral. Users can now configure immovable property and mortgage as internal assets for processing through the Collateral module. Based on the setup defined in the `COLLATERAL . TYPE` application, the system captures all the details with respect to these assets. The `ASSET . REG . PROPERTY` and `CO . REG . MORTGAGE` applications are introduced in Temenos Transact to store the details of the immovable property and mortgage, respectively.

Account Reporting Events and Services

Available from: **202101**

The Account Reporting Events and Services (IZ) module is introduced in Temenos Transact, which provides a soft and flexible mechanism to enrich the content of the Cash Management (CAMT) messages. The IZ module leverages the Integration Framework (IF) Designer capabilities to provide a soft mechanism to customise the content of a preconfigured default entry event



released by Temenos.

Limits » Buffer Limits for Individual Customers

Available from: **202101**

The `LIMIT` application has been enhanced to allow users to assign buffer limits to individual customers. When a user assigns a buffer limit to an individual customer, the system accepts any valid records in `CUSTOMER`, irrespective of whether they are part of a record in `CUSTOMER . GROUP` or not. Temenos Transact allows the user to create only one buffer limit per customer and per Limit product.

The Risk & Exposure Overview (`CUSTOMER.SCV.CHECK`) enquiry has been enhanced to display buffer limits at the customer level. When sub-allocating from buffer limits that belong to individual customers, the user can sub-allocate only to validation limits that have the same customer and Limit product (`LIMIT . REFERENCE` record).

Generic Accounting Interface » Processing Cross-Currency Booking Request

Available from: **202101**

The Generic Accounting Interface (GAI) module has been enhanced to allow booking requests in cross-currencies, that is, currencies other than the account currency, through parameterisation. Banks can define the exchange rate type to be used for processing the cross-currency booking requests in the *Exchange Rate Type* field in the `AC . ENTRY . PARAM` application. If the processing is successful, accounting entries are raised for the account in request by applying necessary currency conversion if the transaction currency is different from the account currency, and the corresponding contra account is debited or credited to ensure a well-balanced operation.



Collateral » Collateral Allocation based on Percentage Cap

Available from: **202102**

This functionality provides banks the ability to capture the percentage contribution of the individual collateral provider to the associated liability.

Cheque and Draft Issue Management » Tax on Cheque Issue Charges

Available from: **202102**

Some banks collect value-added tax (VAT) on all charges and interest from the customer at a rate defined by the local government. Cheque issue charges are one of the charges collected by the bank. This is a variable charge based on the number of cheque leaves issued by the bank to its customers. This cheque issue charge is subjected to additional tax amount at a specific percentage of the charged amount and is collected from the customers.

The *Tax Code* field has been added in the `CHEQUE . CHARGE` application to apply a tax (such as VAT) to the charges calculated for the number of cheques issued to a customer. The *Tax ID* and *Tax Amount* fields are added in the `CHEQUE . ISSUE` application to display the tax code and calculated tax, respectively.

Direct Debit » Processing of Creditor Driven Direct Debit E-mandates

Available from: **202102**

The Direct Debit (DD) module in Temenos Transact provides banks the feature to register and maintain DD mandates manually, through APIs or as an auto-registration process as part of DD collections processed through Temenos Payments Hub (TPH).



This functionality allows banks to:

- Receive files containing ISO20022 pain.009, pain.010 and pain.011 messages from the Centralised Mandate System based on which the system will register, amend or cancel DD mandates.
- Send pain.012 acceptance reports back to the Centralised Mandate System confirming the acceptance of the DD mandates registration, amendment and cancellation requests.
- Receive file containing ISO20022 pain.012S2 message for registering the response from Centralised Mandate System to the requests' processing.

Arrangements Architecture » Defining Mandate Requirements Centrally

Available from: **202102**

Temenos Transact now allows the banks to define logical grouping of financial or non-financial applications that perform transactions for which mandate processing is applied. The Mandate Requirement application allows the user to define the mandate conditions applicable to the specified mandate application groups and to indicate if these apply to the portfolio, account or customer.

Temenos Transact provides customers the flexibility to use the new centralised way of defining mandate requirements or continue with the existing method of defining mandate requirements. The option to define mandate requirements at the portfolio level is only supported by the centralised Mandate Requirement application. This functionality provides banks the ability to create and maintain mandate requirement centrally without implying changes for each customer or account.

Delivery » Emitting Delivery Messages to Event Store

Available from: **202102**

Infinity products can manage and process alerts for Infinity users by consuming events from an external system. The Delivery (DE) module in Temenos Transact



emits delivery events details only to Temenos Transact customers.

The Delivery module has been enhanced to provide the ability to emit delivery messages or events to the Event Store microservice, which can be consumed by Infinity products or other external systems.

Account Reporting Events and Services » Entry Event for Funds Transfer

Available from: **202102**

The Account Reporting Events and Services (IZ) module in Temenos Transact has been enhanced with an additional Entry Event for streaming the accounting entries specific to the `FUNDS . TRANSFER` application.

This functionality enables Preconfigured Entry Event specific to the `FUNDS . TRANSFER` application, which provides more transaction-specific enrichment to the Entry and Transaction Detail tags for Cash Management (CAMT) messages.

System Tables » Generating Accrual and Amortisation Entries through Soft Accounting

Available from: **202102**

The `EB . ACCRUAL` application is enhanced to use the Temenos Transact Soft Accounting functionality to generate the daily accounting entries for all AA Arrangement contracts. This allows banks to use rule-based accounting to generate the daily accrual or amortisation entries for AA Arrangement contracts.

Click [here](#) to understand the installation and configuration updates for this enhancement.



Accounts » Configuring Incoming MT920

Available from: **202102**

Account Statement functionality supports Outgoing and Incoming (MT920) Statement request in Transact through `DE . STATEMENT . REQUEST` application. Even though it supports both the Outgoing and Incoming (MT920) Statement requests, the configuration was available only for the generation of Outward statement request.

To overcome the above, the Account Statement functionality is enhanced to configure Incoming MT920. It provides a single option to manage the Incoming statement request to view, edit and to action further.

It enables you to view the list of authorised and unauthorised incoming statement request records from `DE . STATEMENT . REQUEST` application.

Delivery » Delivery as Microservice Events

Available from: **202102**

Delivery (DE) module in Transact is enhanced with the ability to emit delivery messages or events to the Event Store microservice, which then can be consumed by Infinity or other external systems by configuring a dedicated delivery interface to the delivery carrier. This feature enables the bank administrator who may or may not have `CUSTOMER` record in Transact, to raise an alert request the account/arrangement to which he is not associated at the Transact level. Transact provides a placeholder (*Ext User Id*) in `EB . ALERT . REQUEST` for the bank to specify the user id in the alert request. This is a free text field and the validations are done by the Infinity system when a subscription request is raised to Transact.



System Tables/Standing Order » Structured Address Fields in BENEFICIARY and STANDING.ORDER

Available from: **202103**

The BENEFICIARY and STANDING.ORDER applications in Temenos Transact have been enhanced with additional fields to support detailed address information for beneficiary customer, ultimate creditor and ultimate debtor. The address details captured in the BENEFICIARY application are automatically populated in the STANDING.ORDER application. The address details captured in the STANDING.ORDER application are mapped to the PAYMENT.ORDER application, if the payment is instructed to be executed with PAYMENT.ORDER.

Click [here](#) to understand the technical impact of this enhancement for customisation and upgrades.

Arrangements Architecture » Defining Mandate Requirements for Customer Portfolios

Available from: **202103**

In Temenos Transact, users can set up mandate requirements at the customer or account level, indicating the conditions in which various types of transactions are considered approved.

Temenos Transact now allows banks to define the mandate requirements at customer's portfolio level. This functionality provides customers options to segregate the investment approvals and assign the investment-related approvals to the relevant business functions in their companies.



Delivery » Delivery Preferences for Portfolios and Additional Recipients

Available from: **202103**

The Delivery module has been enhanced with the ability to send an additional copy or redirect a customer delivery message or alert to other recipients, based on the preferences indicated by the primary customer. Also, the Delivery module now provides an option to define the contact preferences for a customer's portfolio, which allows banks to capture these at the account or customer level.

This functionality allows customers to:

- Redirect or send an additional copy of their messages or alerts to other recipients.
- Maintain separate alert preferences for their portfolios individually.

Accounts » Capturing Company or Branch-specific Settlement Accounts

Available from: **202103**

The `CUSTOMER.SSI` application in Temenos Transact is used to define the settlement account for different types of transactions for customers. Some customers may want to create and settle Forex (FX) transactions in different locations or branches. In such cases, the bank may define branch-specific default settlement account for the customer.

The *Company* field is added in the `CUSTOMER.SSI` application, which allows the user to capture the branch company for which the settlement account will be defined and used. During the transaction initiation process, the appropriate default settlement account is retrieved based on the branch-specific configuration in `CUSTOMER.SSI`.



Account Reporting Events and Service » Cash Management (CAMT) – Statement Cycle Event



Available from: **202104**

Temenos has released an out-of-the-box statement event for handling the information required for the 'Statement' and 'Header' tags of the CAMT account statement messages. This functionality provides a pre-configured statement event with specific details, such as the message header, account owner, recipients of the messages and account balances for each account statement.

Account Reporting Events and Service » Intraday Statement – CAMT.052



Available from: **202104**

Temenos Transact has been enhanced to support the Intraday statement request at scheduled time intervals, as well as on demand in the CAMT.052 format using the Integration Framework and data streaming capability.

Account Reporting Events and Service » Initial Load Processing for CAMT



Available from: **202104**

With the initial load processing for CAMT, it is possible to stream the accounting movements raised for the statement period for the account before configuring the IZ module and data streaming capability to have all the entries available for the statement production.



Account Reporting Events and Service » CAMT-Entry Event for External SEP

Available from: **202104**

Temenos has released an out-of-the-box Entry Event to handle transactions processed through External SEPA system.

Expected Receipts » Receiving and Matching ISO20022 Credit Advises and Notification Messages

Available from: **202104**

The Expected Receipts module is enhanced to accept the inward CAMT.054 credit or debit notification messages (the ISO20022 equivalent for the existing MT910) and match the credit entries with the corresponding payments, confirming that the cover for the payments has been received. In addition, the Expected Receipts module can also handle the inward camt.057 messages (the ISO20022 equivalent for the existing MT210) as notifications that funds will be received by the bank to be credited to the account of the account owner. These notifications can be used to monitor the position of the Nostro or Vostro accounts and will be matched with the corresponding payments.

Transaction Recycler Process » Recycler Process for Non-working Days

Available from: **202104**

The Recycler functionality has been enhanced to process retry requests with a back value date. The system can be set up to check any backdated credit transaction that are posted into a customer's account which has pending retry request handed off to Recycler.



Delivery » Support MX Messages through SWIFT Interact Services

Available from: **202104**

The Temenos Delivery module is now enhanced to process ISO20022 financial messages through SWIFT Interact services. Business Modules like Temenos Payments Hub (TPH), IZ Account Statement use the Delivery capabilities to send/receive Interact messages to SWIFT Alliance. Temenos SWIFT Interact Connector acts as an interface between Transact Delivery queues and SWIFT Alliance. The Delivery framework now accommodates the following capabilities:

- Define the BAH and technical header required to exchange ISO20022 messages through SWIFT Interact based services.
- Determine and add the technical and business application header to financial messages processed via SWIFT Interact based services.
- Enable local authentication to financial messages,
- Store the inward and outward message as well as the technical and BAH details.

Click [here](#) to understand the installation and configuration updates for this enhancement.



Corporate

Cash pooling » Sweeping Suspension and Considering Locked Amount with Multiple Value Dates

Available from: **202007**

Temenos Transact now allows the users to suspend the sweep only for debit or credit by setting the *Susp Sign* field to 'Cr' or 'Dr'. If the account is blocked for debit transactions, then the sweeping is allowed for credit transactions and vice-versa.

Letter of Credit » Handling Optional Fields in MT707/708 for LC and LC . AMENDMENTS

Available from: **202008**

Swift changes 2018 for MT707/MT708 is now enhanced to support optional fields. MT707 is re-structured and aligned as a mirror image of MT700.

Letter of Credit » Handling Optional Tags 50B and 53A in LC

Available from: **202009**

The Tag 53A and Tag 50B fields are added as part of MT707 and MT707/710/720, respectively to convey any information on LC and its amendments instead of using the free text fields.



DRAWINGS » Generic Changes to DRAWINGS



Available from: **202010**

The DRAWINGS module is enhanced to support generic functions as below:

- Input of drawdown account, payment account and payment method during the RD/DC stage of the drawings.
- Change of *Risk Party* for export LC during the DC stage of the drawings.
- *Auto Expiry* of the credit to be set as No for ad hoc instalment payments for Usance drawings.

Syndicated Lending » Risk Free Rates

Available from: **202010**

Syndicated Lending (SL) module supports RFRs with spread inclusive and exclusive methods. The key features are:

- RFR requires daily average (simple or compound) calculation within the current interest period.
- RFRs are based on actual transactional data and these are published with a lag
- There are no credit risk elements involved while calculating the RFRs
- RFR supports Lookback – Narrow definition and Lookback – Observation shift types

Letter of Credit » Open Account Trading in Trade Finance

Available from: **202010**

The Trade Finance module is now extended to support the Open Account Trade payment method. The LETTER.OF.CREDIT application allows booking of trade documents using the new payment method and the DRAWINGS



application supports initiating of remittances against the trade documents.

Letter of Credit » Trade Evidence for Advanced Payment

Available from: **202010**

The Trade Finance module is enhanced to register the trade evidence or documents against the advance payment that is already initiated in the payment platform or module, that is, registering the shipment evidence against the advance payment is handled through the LC module.

DRAWINGS/Collections » Auto Calculation of Contract Maturity Date

Available from: **202011**

Temenos Transact now supports capturing the details of tenor days and base date to allow the auto calculation of the due date or maturity date during registering or the document checking stage, thereby reducing the manual intervention of the user.

Letter of Credit » Merchanting Trade

Available from: **202011**

The `LETTER.OF.CREDIT` and `DRAWINGS` applications are now enhanced to support the Merchanting Trade feature. This feature helps in identifying if the contract is indeed a Merchanting Trade contract and also in establishing the linking between both the export and import legs of the merchant trading contract to complete the merchant trading contract cycle.



Misc Deal/Issue Register Guarantee » Capturing Multiple Applicant / Multiple Instructing Party / Beneficiary under the Same Contract

Available from: **202012**

This module now supports Multiple Applicants and Instructing Parties under a guarantee contract.

Misc Deal/Commission and Charges » Calculation and Collection of Commission Values when Commission Period is Set

Available from: **202012**

Minimum Amount Commission can be set as percentage of guarantee amount. This module now supports collecting commission amount either a) fully in advance or b) in periodic intervals either as fixed amount per period or percentage of outstanding amount, when Commission Period is defined.

Corporate Lending

Available from: **202104**

Temenos corporate banking solution offers the end-to-end support as part of corporate lending suite covering:

- Single / Multi-level Facility
- Standalone Lending / Lending arrangement under the Facility
- Bilateral Lending / Club Loans.

This includes other features such as:

- Revolving / non-revolving commitment, and scheduling the commitment.
- Attaching the user Limit or system generated limit, in line with the deal-facility-drawing structure.



- Defining the restriction or shadow limit within the Utilization limit based on the risk factor/criterion as restriction based on Product, currency, or customer, etc.
- Defining the share details of own bank, participants and sub participants with roles, and ability to transfer the shares within the club or to the non-club member.
- Enabling the split of the existing loan arrangement into two different loans or merge of two different loan arrangement into a single loan or simply to rollover the existing loan arrangement with new conditions.

Click [here](#) to understand the technical impact of this enhancement for customisation and upgrades.

Arrangement Architecture (AA) » Non-Customer Facing Interest

Available from: **202104**

The Non-Customer facing Interest (NCFI) functionality allows the user to define an interest for a non-customer and accrue it on a regular frequency. The accrued amount can be paid out or made due regularly to the non-customer based on the payment frequency defined for that interest.

Click [here](#) to understand the technical impact of this enhancement for customisation and upgrades.

Click [here](#) to understand the installation and configuration updates for this enhancement.

Arrangement Architecture (AA) » Defining Default Settlement Instructions

Available from: **202104**

Temenos Transact now defaults the standard settlement instructions (SSI)



defined at the master arrangement (Deal or Facility) to the underlying child arrangements (Facility or Drawings). Multiple settlement instructions can be defined specific to different customers and currencies.

Click [here](#) to understand the technical impact of this enhancement for customisation and upgrades.



| Islamic Banking

Finance - Profit Upfront Sale Product Group » Capitalisation of Profit Accruals

Available from: **202007**

The interest accruals during initial grace period for a loan repayment can now be capitalised to the principal amount.



Private Wealth

Corporate Action » Standing Instructions on Corporate Action Event Creation

Available from: **202005**

The Securities (SC) module is now enhanced to apply the available standing instructions of customers to the respective Corporate Action event as soon as the entitlements are created. If the standing instructions exist at the time of entitlement creation, the entitlements are created in INAU status with the standing instruction applied.

Securities » LIBOR Replacement in Securities

Available from: **202005**

As part of the LIBOR transition, the Securities module is now enhanced to provide additional feasibility to calculate the coupon rate based on the RFR and the interest rate spread. New fields are introduced in `SECURITY.MASTER` to capture the RFR related characteristics of the instrument such as market conventions, number of lag days, calculation method and so on.

Securities » Upfront Payment through Internal Account

Available from: **202005**

For pension funds in some countries, the banks are legally obliged to send payment to the fund house from an internal account and debit the customer's account only when the NAV and units are declared. Temenos Transact system is enhanced to ensure that the customer's account is debited only on receipt of the allocated units for specific funds. The funds are blocked in the customer's account until allocation.



Institutional Custody » Handling MT566

Available from: **202005**

The Institutional Custody (GC) module is introduced in Temenos Transact to handle trades and transfer and CA events when banks act as a custodian. This module supports Trades and Transfers for Institutional Custody and CA for Institutional Custody features.

Securities » Personal Assets – Transaction Modification

Available from: **202006**

The system is now enhanced to enable the banks to modify the existing buy or sell transaction (such as, date or nominal). On authorisation, the system reverses the existing transaction and rebooks a new transaction with the modified values.

Fiduciary Deposits » Term Deposit Retailing Solution for Fixed Contracts

Available from: **202006**

The Fiduciary module in the Temenos Transact is enhanced to provide a complete term deposit retailing solution.

Corporate Actions » Additional Criteria for Identifying Unique Event Security on Receipt of MT564

Available from: **202006**

The Securities Corporate Actions module is now enhanced to identify the unique internal security ID with additional criteria.



Corporate Actions » Blocking of Positions at Ex Date or Record Date

Available from: **202006**

The Securities Corporate Actions module is now enhanced to block the eligible security positions of a corporate action event from the ex-date or record date of the corporate action event. A field is introduced in the `DIARY.TYPE` application.

Securities » Different FX Rates for Intra-day and End of Day Process

Available from: **202007**

The Securities module is now enhanced to define two different currency markets for transactions during the day and the valuations done in COB.

Corporate Actions » Purchase or Sale of Rights through Market or Custodian

Available from: **202007**

The corporate actions module is now enhanced to allow the user to place the trading instruction of the customer (purchase/sale of rights) in market or with custodian in a rights event.

Securities » Order Creation and Management for Institutional Customers

Available from: **202007**

The system is enhanced to handle inward SETR.004 and SETR.010 SWIFT messages, from institutional customers, to place a redemption and subscription order respectively.



Corporate Actions » Handling Market Notification for Corporate Action Events

Available from: **202008**

Temenos Transact is now enhanced to handle early market notification of a corporate action event from a non-custodian and notify all the entitled customers, who are eligible to receive pre-notifications.

Institutional Custody » Handling Order Cancellation Request

Available from: **202008**

Temenos Transact is enhanced to accept the cancellation request through SETR.005 and SETR.011 for previously sent redemption (SETR.004) or subscription order (SETR.010). On receiving the cancellation request, the system can now trigger the order cancellation status message to the institutional customer through SETR.017.

Institutional Custody » Recording Order Confirmation Cancellation Instruction from Incoming SWIFT

Available from: **202009**

The system is now enhanced to record cancellation of confirmation when received through the incoming SWIFT MX message SETR.047 (subscription order confirmation cancellation instruction) or SETR.051 (redemption order confirmation cancellation instruction).



Corporate Actions » Incremental Customer Election and Confirmation per Option

Available from: **202009**

The Securities module in Temenos Transact supports the generation of customer instructions to the custodian through MT565 incrementally (that is, the previously instructed MT565 messages that are sent are not cancelled). Until the cut-off date, the instruction can be triggered multiple times for each option in each election. The custodian confirms through MT566 for each option. On the pay date, the MT566 received for each option is treated independently.

Securities » Bulk Transfers

Available from: **202010**

Bulk Transfers can be classified into Bulk Securities Transfer and Bulk Custodian Transfer (BCT). Bulk Securities Transfer is used when a new customer is on boarded or an existing customer is leaving the bank. When there is a change in custodian or transfer agent, BCT migrates all the positions held with the custodian or transfer agent to a new custodian or transfer agent. Bulk Securities Transfer and Bulk Custodian Transfer also support bulk authorisation.

Corporate Actions » Incremental Elections for Events without Ex-Date

Available from: **202010**

The system now defaults the ex-date based on the earliest date provided in the *Option Reply by Dates* fields. The customers can,

- participate in the event for the quantity held
- purchase additional units and elect the additional units purchased

New customers (who do not hold the security at the time of event creation) can also purchase the event security and become eligible to participate in the event.



Securities » Market Fees

Available from: **202010**

The following are the new features of this functionality.

- The market fees in the incoming message (MT541 or MT543) for custody clients is mapped to respective fee types and stored as part of the transaction.
- The market fees identified or calculated as part of the transaction are mapped to respective qualifiers as part of the MT541 or MT543 message sent to the custodian.
- The start date (from which a fee or tax is applicable) is defined in `SC.CHARGE.TAX.CALC`. The fee or tax is applicable only for the transactions entered after the defined date.
- An enquiry is provided to notify the institutional customers of the market fee sent to the custodian and the market fee confirmed by the custodian. Using this enquiry, the user can reconcile the market fee. User can define multiple charge calculation rules based on additional criteria such as depository and currency.

Tax Lots » Staples - Setup, Transactions and Tax Lot Maintenance

Available from: **202010**

Stapled securities are formed when two or more securities are contractually bound together so that they cannot be sold separately but are treated as a single security on the stock exchange. Different types of securities can be stapled together such as, shares, units and debt instruments. The single security which represents the staple is known as the parent, while the constituent securities are the child instruments. Temenos Transact is enhanced to support trading of stapled securities. The following features are available in this functionality:

- Staple static data includes setting up the parent and child instruments in `SECURITY.MASTER`. The unit ratio and value split for each child is captured in `SC.STAPLED.COMPONENT`.



- All the transactions (purchases, sales and transfers) takes place only on the parent security.
- The tax lots and the tax cost are maintained only at the child level and not at the parent level for tax purposes. The capital gains (CG) are calculated for each child.
- The system now allows the bank to define whether the allocation has to be set at parent or child level.
- The system supports corporate action on staples. It also supports scenarios where the standalone security becomes a stapled security or vice versa, using the new `SC . STAPLING . ARRANGEMENT` application.
- A new application `SC . STAPLES . REBUILDER` is introduced to trigger or support rebuilding of transactions when the value split across child securities is published with a backward effective date.
- The `CG . MANUAL . ALLOC` or `CG . STAPLES . MANUAL . ALLOC` applications now supports the specific allocation of parcels.

Securities » Handling Brokerage Only Transactions

Available from: **202011**

Temenos Transact now handles brokerage only transactions, where the banks acts an intermediate broker for the customer whose custody is held external. The bank can place order on behalf of its customer and on confirmation of execution by an external broker, the bank settles with the customer and the external broker separately.

Securities » Trailer Fees

Available from: **202011**

Temenos Transact is now enhanced to accept any Internal or Nostro accounts along with any valid customer account. The bank user can now select any account in the *Receivable Acc* field in `SC . TRAIL . FEES . ARRANGEMENT` application. The debit to the receivable account is posted only when the payment is received in `SC . TRAIL . FEES . HOLDING` application and the *Sett*



Status field is set to Completed. This functionality helps the banks to monitor the receivable account as the receivable account are debited only when the funds are received.

Securities/Derivatives » MiFID Transaction Reporting

Available from: **202012**

Temenos Transact is enabled to report all the transactions to oblige the MiFID II - Markets in Financial Instruments Regulation (MiFIR) regulation. The benefits of this feature are that:

- The transactions input in the system can be reported along with all the required details as part of MIFID transaction reporting.
- The reports can be submitted in any format such as csv, text, and so on based on the setup.

Securities » Trailer Fees Accrual Per Portfolio

Available from: **202101**

Banks can now post the trailer fees accrual per security per portfolio. To provide this functionality, the *Accr Per Port* field is introduced in the `SC.TR.FEE.PARAMETER` application. If this field is set to Yes, accrual entries are posted per portfolio. If this field is left blank, accrual entries are posted per account officer.

Securities » LTV Determination based on Rating

Available from: **202101**

Temenos Transact is now enhanced to determine the LTV based on the rating available for the bonds. When there are multiple ratings available from rating agencies, the rating required for LTV calculation is determined based on bank's pre-configured priorities such as ranking of the ratings and priority of the



rating agency.

Securities » Separate Account Linkage Entries

Available from: **202101**

Temenos Transact is enhanced to separately post the accounting linkage entries (that is, the entries that are generated due to changes in the inflation during the bond's tenure) as different entries for principal (cost) and accrued interest or coupon. The separation of linkage entries is effective only for securities that are held in own book portfolio.

Derivatives » Asian and Performance Options

Available from: **202101**

Asian and Performance options are now supported in Temenos Transact.

Asian Options

An option type where the payout depends on the average price of the underlying asset over a certain period of time as opposed to standard options (American and European) where the payoff depends on the price of the underlying asset at a specific point in time (that is, at the time of maturity). Asian options are classified as:

- Fixed Strike - The strike is fixed while average of spot price is used to determine the payout.
- Fixed Spot - The spot price is fixed and the strike price is the average of spot prices on the observation dates.

Performance Options

Track the performance of the underlying asset from the date of commencement of the option upto maturity. The appreciation or depreciation of the underlying asset is used to determine the payout.



Securities » Valuation and Average Price Calculation in FIFO Method

Available from: **202102**

Regulations in some countries require that certain own book and customer portfolios has to be maintained on a First in First Out (FIFO) valuation basis. Temenos Transact supported only the weighted average cost valuation and average price calculation for all portfolios.

In order to support regulatory requirements, Temenos Transact now performs the valuation and average price calculation based on FIFO method for the customer and own book portfolio.

Securities » Determining the Place of Settlement and Defaulting in the Transaction

Available from: **202102**

The Place of Settlement (PSET) is the final depository where the transaction settles. PSET is one of the key to determine the counterparty settlement instructions (SSI) and is mapped in the settlement SWIFT messages that is sent to the custodian (MT 540-543).

PSET is now determined using a combination of several keys namely, clearing code, country code, product type, product sub-type, stock exchange and defaulted in transactions. This functionality helps the banks to determine the correct PSET based on several keys and default it in the transaction.

Securities » Determining NCI for MiFID II

Available from: **202102**

The National Client Identifier (NCI) parameter is introduced in Securities module to enable NCI determination.

- The `SC.NCI.PRIORITY` application holds the applicable NCIs per country in order of priority.



- If an individual has not provided an NCI or in some countries where they do not want to rely on an NCI document, a concatenated value is reported. This concat code is built by combining the nationality, date of birth, first name and surname of the individual. The system builds this concat code as required.
- Additional fields are provided in `SEC . TRADE` , `SECURITY . TRANSFER` , `SEC . OPEN . ORDER` , `SC . BULK . TRANSFER` , `POSITION . TRANSFER` , `SY . DCI` , `FOREX` , `ENTITLEMENT` , `DX . ORDER` and `DX . TRADE` applications to hold the NCI code of all the stakeholders involved in the transaction such as the ordering customer, the decision maker, instruction maker, trader and manager. The LEI and NCI codes are updated from the Wealth Suite Front Office (WSFO) system (TAP) or can be interfaced from any front-end system. In case of transactions directly input in Temenos Transact, then Temenos Transact updates these values.

NCI reporting is a key regulatory requirement of MiFID II and this functionality helps in complying with the same.

Securities » Allowing Internal or Cash Account in Transaction

Available from: **202103**

The Securities module in Temenos Transact is enhanced to accept internal or cash account. The internal or cash account setup in `CUSTOMER . SECURITY` application is defaulted in the transaction. This helps the banks who do not maintain a nostro or vostro relationship with the distributing bank to input transaction using an internal or cash account.

Corporate Actions » US Tax Regulation Compliance

Available from: **202103**

Temenos Transact can now determine the income generated from US



instruments and structure notes with US security underlying and consider the income for taxation under the new regulation. The following are the two types of withholding processing:

- Withholding tax calculation and accounting, when bank is the withholding agent
- Withholding tax calculation and no accounting on the customer's account, when the issuer is the withholding agent and tax is withheld at source.

This regulation ensures that any customer who does not hold the US security but gets the payoff equivalent to the income generated on the US security is now accounted for withholding tax.

Securities » Market Indicator and Settlement Party Tags

Available from: **202103**

Market indicator refers to Tag 22F in SWIFT messages MT540/MT541/MT542/MT543. This is a mandatory tag in mandatory sequence E (settlement details). SWIFT tags support various formats such as P, Q and R for tags related to settlement parties. Rules configuration is required to define the format to be used for settlement parties in messages MT540/541/542/543.

The Securities module in Temenos Transact now supports the setting up of rules to:

- Default market indicator at the transaction level.
- Define the SWIFT format to be used for settlement related tags in SWIFT messages MT540/MT541/MT542/MT543.

Securities » Enabling Cash SSI setup and Improvements to Securities SSI

Available from: **202103**

The following are the new functionality of this enhancement:



- The system is enhanced to record both the securities and cash SSI details.
- Added `SC.CASH.SSI.INSTRUCT` application to record the details of the cash SSI. This application records the beneficiary details, intermediary bank details, broker account and so on, of the broker or depository.
- Additionally, the system now allows:
 - Setting up of duplicate SSI for the same SSI combination where the final settlement account alone differs.
 - Setting up of a validity period to be set per SSI. If trade takes place after the validity period, then the system does not select the expired SSI. The bank can also set SSI based on issuer. Under such cases, the system additionally checks the issuer of the security before defaulting the SSI.
- Grouping of the ISINs to set-up a single SSI, where a single SSI is applied for several ISINs.
- The system now allows the bank to define whether the SSI is applicable for a particular broker or depository at counterparty level. If the SSI status of the broker or depository in `CUSTOMER.SECURITY` is set to Deactivated, the system does not check both the securities and cash SSI for the counterparty.

Qualified Intermediary » US Income Transaction Processing and Withholding Tax

Available from: **202103**

The Tax and Securities (SC) module in Temenos Transact is now enhanced to apply withholding tax when there is a CA event processed considering both Chapter IV (FATCA) and Chapter III (QI Withholding). The banks who act as Qualified Intermediary (QI) can now withhold taxes as required by US Tax Regulations. The SC module along with QI module allows the banks to recalculate the tax amounts in case of any reclassification of income codes and post the adjustments entries, if any. Banks can now record the details of S-302 received from the customer which helps in determining the refund status.



Repo » Configurable Fee Schedule for Bilateral SBL Deals

Available from: **202104**

Enhanced the fee calculation and posting functionality for Stock Borrow and Lending (SBL) transaction are enhanced to allow the banks to update a fee schedule manually. Standard settlement instructions (SSIs) can be set for the counterparty and the same defaults automatically in the SBL transaction. Payment order is raised when payment is made to the counterparty for fees or maturity. Payment message is handled by the Payment Order.

Securities » Central Securities Depositories Regulation

Available from: **202104**

Temenos Transact is now enhanced to set different tolerances based on the settlement amount. If the difference between the settlement amount in the confirmation and the intended settlement is greater than the tolerance, settlement is not processed. Only if the difference is within the range of defined tolerance, settlement is processed and the difference is posted to Profit and Loss (P&L) or suspense account.

Account Reporting Events and Service » Entry Events for Private Wealth

Available from: **202104**

Pre-configured Entry events and Event flows have been released to support the following PWM applications for CAMT message through the Account Reporting Events & Services.

- SEC . TRADE
- SECURITY . TRANSFER



- ENTITLEMENT
- DX . TRADE
- SY . DCI
- SAFEKEEP . HOLDING
- SC . ADVISORY . CHG

Whenever a `STMT . ENTRY` is generated from these PWM applications, additional details are sent to the framework along with the basic information.



| Regional Banking Solutions

Africa CEMAC Model Bank

Asset Classification and Provisioning

Available from: **202103**

This functionality allows the classification of assets based on the number of payments in default or based on the duration of the debit balance of the account without any significant credit movements.

Asset Classification and Provisioning

Available from: **202104**

This functionality allows banks to calculate the provision amount based on the assets which are classified depending on the guarantee type during the life cycle of an asset.

Argentina Model Bank

FX Blacklist

Available from: **202005**

Temenos Transact allows the user to upload and control the FX blacklist files on a daily basis. These files contain information on blacklisted people who are not allowed to perform FX transactions. Banks can also do a manual update of its customers with the blacklist mark.



Embargo Process

Available from: **202005**

The Embargo Process functionality allows the processing of different trades from COELSA (Electronic Clearing House), which manages all the trades received from AFIP (the tax revenue agency of Argentina) on the defaulted customer. The two main steps in the seizure process through COELSA is the online and batch process.

Regulatory Restrictions for Pre-Closure Fees

Available from: **202005**

The Regulatory Restrictions for Pre-Closure Fees functionality provides the ability to apply a pre-closure fee, when a loan is pre-closed based on the rules, created as a parameter.

Reconciliation of Payments

Available from: **202005**

COELSA (Electronic Clearing House) sends out files to banks to facilitate the reconciliation. These files are received by the bank and are placed in a specific configured directory. The services pick up the files received from COELSA and upload them into the `ARPYMT.BILATERAL.RECONCIL` application. The values are fed into Temenos Transact, bank-wise.

The information from Temenos Transact is picked using a service and fed into the same application against the respective bank record. The report is given in the form of a query that gives out the differences between the COELSA information and the system held information.

The user can use the enquiries delivered for the purpose of reconciling the payments that were transacted in the system for bilateral files (bank-wise), received from COELSA for direct debits and credit transfer transactions.



Taxes » Tax Concepts View in Loans

Available from: **202006**

The Tax Concepts View in Loans functionality allows the user to view the value added tax and stamp tax amount in the arrangement overview.

Embargo Process

Available from: **202006**

The Embargo Process functionality allows the processing of different trades from COELSA (Electronic Clearing House), which manages all the trades received from AFIP (the tax revenue agency of Argentina) on the defaulted customer. The two main steps in the seizure process through COELSA are the online and batch processes.

Accounts » Account Type for Inactive Accounts (Saldos Inmovilizados)

Available from: **202007**

This functionality allows the user to manage the new Saldos Inmovilizados account product. Two variations of this product are created to configure the maintenance charges for transferring funds from savings and payroll accounts.

Accounts » Customer Monthly FX Limit

Available from: **202007**

Central Bank of Argentina (BCRA) provides a list of blacklisted customers on a daily basis that are not allowed to perform foreign exchange transactions. If the customer is not blacklisted, Temenos Transact calls the Operation API to validate the eligibility of the customer to perform foreign exchange (FX) transactions. If the API response returns true, then the user will be able to authorise the payment. If the API response returns false, then the user will not be able to authorise the payment.



Accounts » Early Redemption Deposit with UVA



Available from: **202007**

This functionality allows the banks to provide a fixed-term deposit with early redemption option following the mandatory application of Financial Entities that offer any other type of fixed-term deposit. This pre-cancellable type of deposit will have 2 terms, 90 and 180 days.

Accounts » PAIS Tax for FX Debit Cards

Available from: **202007**

This functionality calculates the PAIS (Para una Argentina Inclusiva y Solidaria) tax for international debit card Point of Sale (POS) transactions that require a foreign exchange from US-Dollars (USD) to Argentine Peso (ARS).

Accounts » FX Transactions Restrictions on Debit Card

Available from: **202007**

This functionality performs blacklist customers checks and preferred international account validations for FX debit card transactions before the transaction entries are posted.

Accounts » PAIS Tax for Payments

Available from: **202007**

This functionality allows the user to configure the PAIS tax for the following operations:

- Foreign currency exchange made by financial institutions on behalf of the client or borrower.



- Purchases in foreign currency made from portals, virtual sites or any other modality.
- Book transfers from ARS to USD.
- Transactions between accounts in different currencies (ARS to USD) owned by the same customer.

Taxes » Tax Returns

Available from: **202007**

This functionality sends all the debits performed for a specific tax, a specific client and in a determinate period to be returned to Catamarca, Salta and Tucuman.

Accounts » Saldos Inmovilizados Accounts - Embargo CBU)

Available from: **202008**

This functionality allows banks to apply seizures to Saldos Inmovilizados accounts when the customer does not have any available funds in other financial products.

Taxes » Income Tax of UVA Deposits

Available from: **202009**

This functionality allows users to calculate the income tax for customers that have UVA (Purchasing Value Unit) fixed-term deposits.

Taxes » Stamp Tax Calculation

Available from: **202009**

This functionality allows the user to calculate the stamp tax for non-instrumented loans considering the tax calculation base given by the customer's jurisdiction.



Taxes » Mapping of AFIP Padron for VAT, Income and Turnover Tax

Available from: **202010**

This functionality allows banks to upload the padron files, store them in the Padron Microservice database, and send it to Temenos Transact. The padron data will be added to the customer's records so that the data is available for the calculation of the following taxes: VAT, Income, Perception, and Retention Tax.

Payment Information » DD Mandate

Available from: **202011**

This functionality allows banks to process the Argentinian direct debit mandates. The bank can identify, query, amend, and cancel direct debit mandates through COELSA, the clearinghouse in Argentina.

Accounts » Embargo Process

Available from: **202012**

The Embargo Process allows the processing of different trades from COELSA, which manages all the trades received from AFIP (the tax revenue agency of Argentina) on the defaulted customer.

Accounts » Pre-closure Fees During Cooling Period

Available from: **202012**

This functionality allows banks to set up the cooling period during which the pre-closure fees are not applied, to the customer.



Taxes » Perception VAT

Available from: **202012**

This functionality allows banks to apply two different default base tax rates for Perception VAT (national tax, calculated over the added value in purchased operations in products or services) for taxpayers flagged in the AFIP Contributor file as responsables inscriptos, depending on the tax event.

Taxes » Exemption Framework

Available from: **202102**

This functionality allows banks to manage the exceptions related to jurisdictional taxes, and this is a common functionality used across the Stamp, Turnover Collections, and Turnover Perception taxes.

Taxes » Income Tax on UVA Deposits

Available from: **202102**

This functionality allows users to calculate the income tax with a discount on the maturity date. The income tax is not calculated when the early redeem deposit is done before the maturity date.

Taxes » Stamp Tax

Available from: **202102**

Stamp tax is a jurisdictional tax managed by the tax authority in each jurisdiction. This functionality allows banks to configure the Stamp tax for different products and for different events.

Taxes » Turnover Perceptions

Available from: **202102**

Turnover tax is a jurisdictional tax charged to any individual person that resides



in Argentina and performs an economic activity. This functionality allows banks to calculate the turnover perception based on jurisdiction.

Taxes » Turnover Collections

Available from: **202102**

The Turnover tax is a jurisdictional tax charged to any person (physical or juridical) that performs an economic activity (including freelancers and companies) and its fiscal residence is any province in Argentina. For Turnover tax in the collection, the regime is applicable based on the information provided by padrones and not on the customer address itself. This functionality allows banks to calculate more than one Turnover tax collection for the same tax event, based on the information coming from padrones.

Accounts » UVA Deposits

Available from: **202102**

This functionality provides a new fixed term deposit with early redemption option following the mandatory application of Financial Entities that offer any other type of fixed term deposit. This new pre-cancellable type of deposit will have 2 terms such as 90 and 180 days.

Accounts » Embargo and Liberacion APIs

Available from: **202103**

The Embargo Process functionality allows the processing of different trades from COELSA, which manages all the trades received from AFIP (the tax revenue agency of Argentina) on the defaulted customer. The two main steps in the seizure process through COELSA are the online and batch processes.

Taxes » Automatic Tax Returns

Available from: **202103**

This functionality allows banks to process all the return files before calling the



payment orders, with the respective control validations. The system will discard the tax returns for any account whose base currency is not ARS.

Accounts » Additional Tax on FX Debit Card Transactions

Available from: **202104**

According to Argentinian regulation, when customers buy USD from ARS accounts and currency exchanges on debit card payments, an additional tax (RG4815) will be applied, independently from the current Impuesto PAIS tax. This functionality allows banks to apply an additional tax (RG4815) whenever a payment from a debit card is done into a different currency than ARS.

Accounts » CFT and CFTEA Calculation Method

Available from: **202104**

CFT represents the cost of the amount borrowed (interest), plus all the expenses, commissions, insurance, and taxes that the customer must pay for the loan during its life. That means the correct way to calculate it is using the Interest Rate Return (IRR) financial formula in the calculus for CFTEA.

This functionality allows banks to calculate the CFT and CFTEA values applying the Interest Rate Return (IRR) financial formula in the CFTEA calculation and then its results to be used in the CFT calculation.

Accounts » UVA Deposits - Simulation of Early Redemption

Available from: **202104**

This functionality allows users to have an overview of the total amount that the final customer will be paid in case to decide to cancel a UVA deposit to satisfy the information need about the pre-cancellation simulation for UVA deposits.



Accounts » Tax PAIS Rate for Debit Cards based on Digital Service Providers Flag

Available from: **202104**

Whenever a purchase is made in a currency different from ARS, the PAIS (Para una Argentina Inclusiva y Solidaria) tax will be calculated and charged as a separate transaction to the saving account linked with the debit card.

This functionality calculates the new PAIS tax for international debit card POS transactions that require a foreign exchange from USD to ARS. This functionality enables banks to handle the PAIS tax rate applied to the beneficiary of a debit card purchase done in a currency different from ARS.

Accounts » Turnover Retention Tax and VAT on Payments to Digital Providers

Available from: **202104**

This functionality allows banks to identify whether the beneficiary of a debit card purchase belongs to the list of digital service providers. Temenos Transact will convert the transaction amount, validate the digital providers and calculate the taxes. Also, the system will raise separate accounting entries for taxes when the debit card transactions will be processed.



Australia Model Bank

Capital Gains Tax API

Available from: **202005**

The Capital Gains Tax API functionality enables banks to view API reports created in xls format for realised and unrealised gains or loss. It also allows the bank user to view the daily changes in tax lots.

BPAY (Bill Payments)

Available from: **202005**

This functionality allows banks to integrate with BPAY and whenever a standing order for BPAY is created, Temenos Transact triggers a payment order on the execution day.

Fixed Interest Non-Resident WHT Exemption

Available from: **202005**

If a non-resident WHT (withholding tax) exemption is indicated at the instrument level, there will be no withholding taxes charged, irrespective of any other setup. When the percentage values are multiplied with the entitlement amount or income amount in the `SC.ENT.INCOME.SUPP` application there can be rounding differences in total. This is adjusted against the component with the maximum value.

International Income

Available from: **202005**

The Australia Income and Withholding Tax module has been updated to align with the international securities income.

There are two types of flows for international income: auto-conversion to AUD (all entitlement holders receive the dividend in AUD). Multi-currency events,



where some of the holders opt for the local currency (AUD) and some opt for the event currency (such as USD).

Stapled Securities

Available from: **202005**

The stapled securities involve two or more child securities. The existing income and withholding tax developments allow entering the components at the diary level. In the case of stapled securities, the diary is created at the parent level. However, the withholding tax components can be entered at the child level.

Australia – Base » Alternate Account Number Generation and User Transaction Restriction

Available from: **202006**

Alternate Account Number Generation

This functionality allows banks to generate an alternate account number for each account automatically, as per the bank configuration.

User Transaction Restriction

This functionality prohibits bank users from crediting or debiting their accounts.

Capital Gains Tax API » CGT API Reconciliation and Recoverability

Available from: **202009**

This functionality allows users to generate three capital gain reports for unrealized gain or loss, realized gain or loss and parcel history or tax lots history.



Benefit of Interest

Available from: **202010**

This functionality displays the benefit of interest, for example, the difference between the actual interest calculated on the outstanding principal and the interest calculated with the offset balance at the arrangement level.

Withholding Tax and TFN Number » Term Deposit Schedules

Available from: **202010**

This functionality allows banks to generate term deposits API extracts for upcoming payments. The schedule information will appear as additional rows during any payment event.

Withholding Tax and TFN Number » Stapled Securities Post Settlement Processing

Available from: **202010**

This functionality allows users to enter the WHT components after the settlement process of entitlements is complete. It also allows to extract the updated WHT component values from the Income API extract of the stapled securities.

Australia - Base » Alternate Account Number Generation and User Transaction Restriction

Available from: **202012**

The Alternate Account Number Generation functionality allows banks to automatically generate an alternate account number for each account as per the bank configuration. The User Transaction Restriction functionality prohibits bank users from crediting or debiting their accounts.



Withholding Tax and Trust Income Distributions

» Accrued Tax Based on Accrued Interest

Available from: **202012**

This functionality allows banks to use in their reporting the amount of withholding tax due for a customer on the accrued interest (not yet capitalized) on a given day.

Withholding Tax and Trust Income Distributions

» Resident and Non-Resident Tax Calculations



Available from: **202012**

This functionality allows banks to calculate the tax on the total interest when there are resident and non-resident joint-owners on any account that earns interest.

Lending » Lending Products

Available from: **202104**

This functionality allows banks to use the lending products such as personal loans, vehicle loans, mortgage loans (fixed rate), and mortgage loans (variable rate) in a predefined SaaS environment.

The new AU product conditions have been prefixed with AU and the existing core product conditions that have been reused do not have this prefix.

Withholding Tax and Trust Income Distributions

» Tax Class

Available from: **202104**

This functionality allows banks to define the tax classes by configuring the



AUWHTX . TAX . CLASS application. The attributes consist of the *45 Day Rule Flag*, *Income Basis*, *CGT Basis*, and *Instrument Listing Type*.



Belgium Model Bank

TOB Tax » Withholding Tax

Available from: **202103**

This functionality allows banks to calculate the Belgian transaction tax (TOB tax) for persons. In case of co-holding with a customer who is not a Belgian resident the calculation of the tax is split in equal parts among the account holders and only for the part of the account attributable to the Belgian fiscal residents the income is submitted to the TOB tax. This functionality also allows banks to exempt any client from the TOB tax.



Brazil Model Bank

Bacen Jud (Judicial Blocking)

Available from: **202005**

Bacen Jud is a communication tool between the judiciary and financial institutions, with technical intermediation from the Central Bank of Brazil. This system replaces the paper-craft for requesting information (existence of accounts, statement, balance, and address), blocking, unlocking and transfer of values. It seeks automation, agility, security and economy without usurping the magistrate's decision-making assignment.

File Extraction for Legal Purpose

Available from: **202005**

The File Extraction for Legal Purpose functionality enables banks to align with Brazilian regulation and provides the ability to extract information of new customers, accounts, loans and deposits in a specific path.

Payment Interface to JD Gateway

Available from: **202005**

Temenos Transact allows the user to input single request payments with specific fields for Brazil. The payment information will be exchanged through Web Services for the Available Electronic Transfer (TED) process. The user can also input multivalued request payments with specific fields for Brazil, and the payment information will be exchanged through plain files for the Credit Order Document (DOC) process.



Customer Compliance » Positive Register

Customer File

Available from: **202009**

This functionality allows banks to generate the positive register customer file. The file contains the customer information that will be used by the financial institutions in Brazil that have an interface with JD Consultores.

Parceled Credit Product » Credit Operations

Available from: **202010**

This functionality allows financial institutions to collect the Imposto sobre Operações Financeiras (IOF) tax when issuing a loan for a customer. The IOF tax can be discounted in the release of the amount to the borrower (client) or the financial institution can finance it.

Deposit Certificate » CDB Pre-fixed and Post-fixed

Available from: **202104**

In the Brazilian market, Bank Deposit Certificates (CDB) are deposits placed by customers. During the life of the deposits, customers can request partial or total withdrawal of a deposit.

This functionality allows users to perform a partial or total withdrawal of CDB deposits as per the regulatory requirement demanded by Brazil.

Deposit Certificate » Full Withdrawal Reports

Available from: **202104**

This functionality allows users to generate an XML file for the positive register of the prefixado deposits for today's date activities. The BRDEPO.EARLY.WITHDRAWAL.REPORT service is created in the



TSA . SERVICE application to generate the file.



Canada Model Bank

Lending Insurances

Available from: **202104**

This functionality allows Financial Institutions to offer insurance products for their Line of Credit (LOC) products. The insurance product offering for the LOC product is based on age-group-wise rate eligibility, gender, and smoking habits of the customer. The facilitation for the accessed provincial taxes on the insurance product is also applicable and accounted for the LOC product.

Lending Renewals

Available from: **202104**

It is common in the mortgage and commercial term marketplace for a bank to offer its clients several terms and payment options before renewing a loan. This functionality allows banks to capture the data required to renew a loan.



CEMAC Model Bank

Alyssa - Centralisation of Payment Incident

Available from: **202007**

This functionality allows banks to provide declarations to the Central Bank of Africa for the creation, regularization and cancellation of incidents of payments and to manage the creation and release of an irregular instrument of payment.

Balance of Payments

Available from: **202007**

This functionality allows the user to generate a report for foreign currency transactions to the BEAC on a monthly basis.

Alyssa - Centralization of Payment Incident »

Non-Payments

Available from: **202010**

This functionality allows banks to configure the nature of a declaration and a notification, to capture additional information required by a bank, during the onboarding process of a customer or the creation of an account, and to format and generate Alyssa Centralization of Payments (CIP) files.

Asset Classification and Provisioning

Available from: **202101**

This module allows the classification of assets based on the number of payments in default or based on the duration of the debit balance of the account without any significant credit movements. The

`AFRACP.ACCOUNT.DAYS.PAST.DUE` application is introduced to store the movement in the classification based on the number of days past due.



Central Bank Model Bank

Vault Management System Solution » Update Current Serial Number and Authorised Person Signature

Available from: **202005**

This functionality provides the ability to place the currency in different bags, mark these bags against an entity, and keep them in the vault. Serial numbers are included on the banknotes when they are first issued. The number, which is unique for each banknote, allows the note to be traced and identified. An enquiry is available to track the currency using the serial number.

Vault Management System Solution » Adaption of Currency and Handling Specimen Currency

Available from: **202006**

This functionality allows Central Banks to run inter-branch transfers and manage specimen and commemorative currencies.

Treasury Management (Auctions)

Available from: **202009**

This module helps Central Banks to run the auction process, capture bid information, keep track of expected amounts, capture the cut-off price and select the successful bidder for treasury bills or bonds.



China Model Bank

Goods and Services Tax » VAT Processing

Available from: **202008**

This functionality allows users to manage the charges collected for banking transactions and accrued incomes, collected for loans, deposits, payments due to interests and letter of credits.



Colombia Model Bank

Effective Rate

Available from: **202005**

A new annual percentage rate (APR) type is set up, in order to be used for the accounts and deposits products. The value for the EAR rate will be displayed in the arrangement overview and it will be stored in Temenos Transact. This functionality allows users to access the available effective annual rates at any time during the lifetime of the product.

Accounting Classification » Accounting by Status

Available from: **202009**

This functionality allows the user to configure the `EB.LOOKUP` application to define the Abandoned status in the Dormancy product condition for the saving account.

Account and Deposit Regulations » GMF Tax

Available from: **202011**

This functionality allows bank users to apply the GMF (tax on financial transactions) tax to debit transactions on savings accounts and deposits based on certain conditions.

Account and Deposit Regulations » Regulatory Reports Data

Available from: **202011**

This functionality allows users to generate the statement for high yield savings accounts as an XML file.



Account and Deposit Regulations » Services

Certificates

Available from: **202011**

This functionality allows banks to generate certificates (on demand) for pocket savings high yield savings, deposits, and good standing products. Banks will be able to generate reports and certificates for customers to comply with local regulations and customer's needs.



Cyprus Model Bank

ATM Framework » Fast Funds Requests - Debit Cards

Available from: **202012**

This functionality enables banks to handle fast funds authorization requests received from merchants using the Visa Fast Funds service, and the transactions for debit cards.



Finland Model Bank

Single Euro Payments Area (SEPA) AOS1

Available from: **202005**

As part of the Payments Posting and Validations module, the SEPA AOS1 (Additional Optional Services) functionality has been developed and it allows the user to initiate SEPA outgoing and incoming credit transfers and verify that the *Acceptance Date Time* field is updated with the server current date-time.

Lending » Due Date Offset

Available from: **202006**

This functionality allows the users to set the first repayment due date for new loans and modify the due date for existing loan arrangements.

Lending » Legal Fee Cap

Available from: **202006**

The Legal Fee Cap functionality calculates the charge amount and overrides the final charge amount per day based on the cap fee rule, for each fee available in a particular loan account.

HAL Guarantee

Available from: **202006**

The `CMBASE.HAL.CALCULATOR` application is introduced, to enable the bank user to capture the values related to the loan to derive the HAL guarantee values based on the calculation routine.



Customer Processing » Customer Account

Enquiries

Available from: **202006**

This functionality allows banks to use the International Bank Account Number and Social Security Number as search criteria while searching for the details of an account.

Customer Processing » Overdrawn Accounts

Enquiry

Available from: **202006**

The Overdrawn Accounts Enquiry allows banks to use the *IBAN*, *SSN* or *Corporate ID* as well as the *Branch* or *DAO* code part of the search criteria and these details are also displayed in the outputs.

Account Related Processing » ITELLA Scanned

Payments

Available from: **202008**

This functionality generates the account statement on a defined frequency for each account using the ITELLA postal services, as per the information requested by ITELLA. ITELLA is the postal service in Finland responsible for the delivery of the account statements requested by customers.

Payments Posting and Validations » Payment

Confirmation Slip

Available from: **202008**

This functionality allows users to generate the payment confirmation slip from the `PAYMENT.ORDER` application in the Finnish format, based on the nature of



the transaction, to send it to the customer.

Periodic Interest » Configure the Date for the Periodic Interest Rate

Available from: **202008**

This functionality allows users to set the periodic interest rate for the current date for loan contracts for individual customers, using the `NORPIR.PARAMETER` application.

Subsidy Loans » Configure the First and Last Disbursement

Available from: **202008**

This functionality allows the user to define the minimum first disbursement percentage and the maximum allowed number of disbursements.

Student Loan » KELA Interface

Available from: **202008**

This functionality allows users to send details to KELA whenever there is a new student loan request in the bank or a change in the loan details during the loan transfer.

Student Loan » Term or Maturity Date

Available from: **202008**

This functionality allows users to calculate the repayment maturity date of student loans depending if KELA (Social Insurance Institution of Finland) sends the interest capitalisation confirmation for a loan or not.



Account Related Processing » Account Statements Including Generic and Regulatory Notifications

Available from: **202009**

This functionality allows banks to capture additional notifications to be sent to the customer as part of the account statement. This applies to all types of accounts that are offered to retail and corporate customers.

Payments Posting and Validations » Finnish Reference Number

Available from: **202009**

This functionality allows the user to validate the received or captured creditor reference number, in the Finnish format or International Creditor Reference Number (RF) format, at the bank level, regardless of the channel for both outgoing and incoming transactions.

Student Loan » Student Loan Termination

Available from: **202009**

This functionality allows the user to perform the loan termination for student loans and normal loans. The user can set the loan termination and maturity date for the loan that needs to be terminated and select the demand reason as appropriate. The user can reverse a loan termination.

Student Loan » Display KELA Details

Available from: **202009**

This functionality allows banks to validate the disbursements done for a student loan against the plan provided by KELA. The bank can cancel the student loans



to facilitate the transfer to another bank and Temenos Transact will not allow disbursements for cancelled loans.

Account Related Processing (Including Support of ASP Accounts) » ASP Account Closure Extract

Available from: **202010**

This functionality allows banks to collate the details of the ASP (House Builder Savings Account) accounts and sent them to the State Treasury.

Invoicing Capability (Fininvoice) » Subsidy Invoicing and Credit Note

Available from: **202010**

This functionality allows banks to generate invoices in the Fininvoice format for the subsidy interest that is due from a subsidy provider on the same due date. When an invoice sent to the subsidy provider is incorrect, a credit note for that invoice will be generated in the Fininvoice format.

Payments Posting and Validations » Automatic Processing of Recall Message

Available from: **202010**

This functionality allows banks to handle the outgoing and incoming camt.056 request and perform certain validations and enrichments.



Invoicing Capability (Fininvoice) » Customer Invoicing and Credit Note

Available from: **202011**

This functionality allows banks to generate customer invoices with the interest due, the repayment details, and also credit notes in an XML format.

Collateral » Automatically Delink the Collateral when Liabilities End

Available from: **202012**

This functionality allows banks to automatically delink the collateral once the loan is closed and to update the status of the collateral related document collected from the customer.

Account Related Processing » Restrict View of Transactions

Available from: **202101**

This functionality allows banks to restrict the display of past transactions and balances to a customer who is added to an account. While adding a new customer to an account through the change customer activity, the branch user has the option to either permit or restrict the new customer from viewing the past transactions.

Collateral » Automatically Depreciate the Vehicle's Collateral Nominal Value

Available from: **202101**

This functionality allows banks to automatically depreciate the vehicle's collateral nominal value. The `COLLATERAL.TYPE, FI` and `COLLATERAL, FI`



versions are used to capture the depreciation details.

Collateral » Expiry of Lease Agreement for Real Estates

Available from: **202101**

This functionality allows banks to monitor the collaterals which are of lease agreement type whose lease agreements are expiring in the upcoming months.

Collateral » Collateral Risk View Enquiry

Available from: **202102**

This functionality allows banks to view the risk for a single or group of customers. Collaterals and the limit information of customers are viewed in a single enquiry screen.

Collateral » LTV Calculation

Available from: **202102**

This functionality allows banks to calculate the Loan-to-Value (LTV) ratio using the formula provided by the Finnish Supervisory Authority (FSA). It also allows users to capture LTV breach reasons applied to housing loans when the Loan-to-Collateral (LTC) ratio is above the allowed value.

Collateral » Warning on Amendments Increasing Risk

Available from: **202102**

This functionality allows banks to receive a warning on any amendment that increases the risk for the bank such as releasing any collateral. The bank can decide whether it wants to redo the valuation.



Subsidy Loans » Interest Subsidy Loan

Available from: **202103**

This functionality allows banks to add, modify, disable or remove the interest subsidy loan related templates into Temenos Transact. It also allows banks to calculate the interest subsidy - to each loan based on the selected interest subsidy - templates.

Collateral » Automatically Renew Certain Guarantee

Available from: **202104**

This functionality allows banks to renew certain guarantees, as the maximum expiry date is 10 years. The 10 years maximum expiry date can be configured as per the bank's requirements.

Lending » Performing and Initiating Credit Loss

Available from: **202104**

This functionality allows banks to perform full and partial credit loss using the adjust bill activity that is part of the arrangement. The adjusted balance is updated into a new local contingent balance to calculate the penalty interest. The adjusted amount is then moved into the corresponding P&L (Profit and Loss) account and the details are stored in the AA . PRD . DES . XCREDITLOSS external property class for information purposes. When banks recover money from customers, the adjust balance activity will be reversed, the payment will be applied and the balance will be increased, if necessary.



France Model Bank

PFNL (Prélèvement Forfaitaire Non-Libératoire) Tax

Available from: **202103**

PFNL (Prélèvement Forfaitaire Non-Libératoire) is a tax withheld on income payments (cash interest, dividends, coupon, and issue premium in relation with principal payments) on any undermentioned instrument or product. This is a flat tax and is calculated in addition to the withholding tax (WHT) and it applies to the individuals who are fiscally residents in France. PFNL is voluntary only, therefore a mandate (customer's instruction) allowing the bank to act on his behalf is mandatory. This functionality allows banks to calculate the PFNL French tax.



Germany Model Bank

Taxation Interface to Sectras » Sectras Taxation



Available from: **202011**

This Sectras Tax Interface module integrates the Temenos Transact system with the Sectras taxation system for German taxation. The module supports taxation of all cash related income on liability account products like current accounts and time deposits.

Taxation Interface to CPB SECTRAS »

Customer Static Data

Available from: **202104**

This functionality allows financial institutions to transfer static customer and account data from Temenos Transact to CPB Sectras.



Global Model Bank

All Funds Bank Interface » Fund Catalogue

Record 71 Sub03

Available from: **202008**

This functionality allows users to process the commission details for the Record 71 Sub03 received from AFB in the `ALLFND.FUND.SECURITY` application.

All Funds Bank Interface » Order Settlement

Document

Available from: **202008**

This functionality allows users to load the data from the incoming file from AFB in the `ALLFND.TRANSACTION.LOG` application, and update the confirmation date, value date, currency, and commissions in the `SC.SEC.EXE.ORDER`, `SECURITY.TRANSFER`, `POSITION.TRANSFER` and `ESFUND.TRASPASO.REQUEST` corresponding applications.

Core Functionality for all Country Modules »

MiFID TRAX Reporting

Available from: **202008**

This functionality allows users to capture multiple trading venue transaction identification codes provided by the broker, when there are multiple executions for a single order using the *Trd Venue Txnid* field from the `SC.EXE.SEC.ORDERS` application.



Goods and Services Tax (GST) » Charge Validation

Available from: **202101**

The Value Added Tax (VAT) functionality allows the user to apply VAT on the charges collected from the customers.

The system will prioritise the *Refund Version* value in the `TAXREG.PARAMETER` application, over the modules available.

Tax Rectification Tool » Rectification Tool Operation

Available from: **202104**

This functionality allows banks to use the rectification tool to generate rectification transactions without affecting the original transaction.



Hong Kong Model Bank

Lending

Available from: **202104**

This functionality allows users to support crediting the loan amount to customers before the same-day HIBOR or LIBOR is available, for the loans with the interest rate based on specific periodic indexes like HIBOR or LIBOR.

When the same-day HIBOR or LIBOR is available, the system will trigger an update of the interest rate to all the related disbursements and generate the updated advice. After the rate changes, the system will not affect the available limit for the contract.



Hungary Model Bank

Warrants » Queuing of Payments

Available from: **202005**

This functionality ensures that the collectible amount shall not be utilised by the customer for any other purpose than the prioritised collections already existing in the queue.

Warrants » Queuing of Payments

Available from: **202006**

This functionality now allows users to retain the collection orders, fees, charges or lending related payments in a queue in case of no or insufficient balances on customer accounts. It ensures that the collectable amount will not be utilised by the customer for any other purpose than for the prioritised collections available in the queue.

Transaction Fees » Financial Transaction Levy Fee

Available from: **202007**

This functionality allows users to calculate the levy on financial transactions, which is paid by the bank to the tax authority.

Warrants » Queuing of Payments and Warrants

Available from: **202007**

This functionality allows banks to have a legal compliant collection process in case of insufficient funds on the customer accounts.



Warrants » Queuing of Payments and Warrants

- UOD

Available from: **202008**

This functionality allows users to queue unauthorised overdrafts. A queue is established when an eligible account has a UOD due to debit interest and/or charges and/or fees charged to that account.

Warrants » Queuing of Payments and Warrants

- Settlement

Available from: **202008**

This functionality allows bank users to manage settlements for warrants and loans. The *Min Payment Amount Check* field is introduced in the `HUWRNT.QUEUE.TYPE` application to specify whether during the partial settlement of a warrant, the minimum threshold amount defined for partial settlement is required or not.

Warrants » Queuing of Payments and Warrants

- Cashpool

Available from: **202008**

This functionality allows the user to handle cashpool accounts for collection. The available balance is calculated based on the accounts of the customer. In the case of cashpool accounts, the aggregated or shared balance usage depends on the type of cashpool and type of collections.



Warrants » Queuing of Payments and Warrants - CLC

Available from: **202008**

The functionality addresses the tasks performed by the Customer Level Collection (CLC) service, which is a common service used for warrant collection, collection of loan repayments and collection of an un-authorized overdraft (UOD). Collections happen across all accounts of customers, except for certain types of accounts which are excluded.

Payment Account Validations » IBAN Validation

Available from: **202009**

This functionality allows banks to validate the International Bank Account Number (IBAN) when payment orders are initiated manually or from the Pain.001 or MT 101 files.

Transaction Fees » Free of Charge Notification Letter

Available from: **202011**

This functionality allows banks to provide different Automated Teller Machine (ATM) free transaction package discounts to their customers and handles the statutory free transaction for the bank's account.

Warrants » Priority Change of Unauthorized Overdraft

Available from: **202011**

This functionality allows banks to be fully compliant with the rule that the



regulatory warrant priority is higher than the Un-authorized Over Draft (UOD) collection priority.

Warrants » Locking of Accounts

Available from: **202012**

This functionality allows banks to create manually locks in Temenos Transact.

Warrants » Locking of Accounts

Available from: **202101**

This functionality allows banks to handle the priority 3 locks. Once the manual lock is placed through the

`AC.LOCKED.EVENTS, HUWRNT.OTHER.LOCKS.INPUT` version and the record is committed, the system will utilise or have access to only those lock types whose priority is 3.



India Model Bank

Customer Enhancements and Validations

Available from: **202005**

This functionality allows the user to create new customers following the Indian regulations. When a customer is onboarded, the customer record will be created and the following information will be validated: nationality and residence, address, date of birth, identification documents, industry codes (if applicable) and the customer relation (if applicable).

Accounts » Corporate Customer Account Types Configuration and Validation

Available from: **202006**

The Accounts functionality allows banks to configure the different types of corporate accounts that can be opened, their eligibility, validations and the transfer and closure processes.

Account Parties » Nomination Registration for Accounts and Deposits

Available from: **202006**

This functionality allows the nominee to receive the outstanding balance in the account as a trustee of legal affairs, in the event of the death of the depositor.

Accounts » Internal Account Restriction

Available from: **202007**

This functionality allows banks to store the reference number of the original transaction during the reversal of an entry in Temenos Transact.



Goods and Services Tax

Available from: **202007**

This functionality allows the user to identify which taxes can be applied from the following taxes available: CGST and SGST, or IGST. The system will automatically calculate these taxes using new routines.

Payments Information » Remittance Regulatory Returns to FIRC

Available from: **202007**

A Foreign Inward Remittance Certificate (FIRC) acts as a documentation for a foreign money transfer. It tracks the amount of the transfer in both the foreign currency and in rupees, as well as where the transfer comes from and where it ends up. The `DEAL.SLIP.FORMAT` application allows the users to define the FIRC layout to enable print advice generation in Temenos Transact.

Accounts » Booking Branch Information Printed on Account Statements

Available from: **202008**

This functionality allows users to generate and print account statements that contains the branch details, using the `BNK/IN.PRINT.STATEMENT` service.

Lending Compliance » Foreign Currency Advances

Available from: **202008**

This functionality allows users to generate the necessary reports with a specified frequency for each customer category so that, every month, the bank can monitor and review the unhedged portion of the foreign currency exposures of their



customers.

Lending Compliance » Loan Rolled Over

Available from: **202008**

This functionality allows banks to track and restrict rollovers for customer loan contracts created under the short-term loan product.

Lending Compliance » Penal Interest

Available from: **202008**

The functionality allows the user to configure and capture the classification of a loan under the priority sector category, to prevent charging penal interest for the principal amount up to 25000 rupees.

Payments information » Remittance Regulatory Returns to RBI and FIRC

Available from: **202008**

This functionality allows users to mark the already issued FIRC series ID as cancelled using the `INPYMT.FIRX.SERIES` application, so that the next available FIRC series will be assigned to this payment transaction. No change will be made in the payment transaction.

Accounts » Tax Deduction (TDS) on Deposits

Available from: **202009**

This functionality allows banks to outline the exact eligibility criteria and applicable scenarios for calculating the interest and tax deduction (TDS) for fixed deposits. Whenever the interest on customer deposits crosses the threshold, the tax will be deducted.



Lending Compliance » Minimum Tenor and Working Capital

Available from: **202009**

This functionality allows banks to have a minimum tenor check on the loans for large borrowers as per the regulatory guidelines. Large borrowers are identified from the Central Repository of Information on Large Credits (CRILC). These customers will be bulk classified in the system.

Lending Compliance » Non-Performing Asset (NPA) Validations and Calculations

Available from: **202009**

The functionality allows banks to classify, monitor and manage the lifecycle of the accounts and non-performing assets as per the Reserve Bank of India's (RBI) regulations.

Goods and Services Tax

Available from: **202009**

The Goods and Services Tax (GST) is an indirect tax for the entire country. This functionality allows the user to apply the GST tax for transactions involving currency conversions using the `PAYMENT.ORDER` application.

Lending Compliance » Bank Guarantee Validations and Restrictions

Available from: **202010**

This functionality allows users to define the guarantee beneficiaries and validate the specific records. The `PAYMENT.CATEG.PURPOSE` application allows users to define the beneficiary categories for the guarantees.



Lending Compliance » Loan Rolled Over

Available from: **202010**

This functionality allows users to repay past-due loans and then roll over those loans from the date of repayment.

Goods and Services Tax (GST) » Calculating Split Tax

Available from: **202010**

The Goods and Services Tax (GST) is an indirect tax for the entire country. This functionality allows banks to calculate the split tax using the `FUNDS . TRANSFER` and `MM . MONEY . MARKET` applications.

Accounts » Issuance of Electronic Bank Realisation Certificate (eBRC)

Available from: **202011**

This functionality allows both the automatic and manual trigger in the system for the generation of electronic bank realisation certificates (eBRC).

Lending Compliance » Import and Export Data Processing and Monitoring System

Available from: **202011**

This functionality allows banks to manage the import process and transactions. The system allows the issuance of a bill of entry (BOE), the BOE acknowledgement letter, and if needed, the extension of the BOE, settlement, and closure.



Lending Compliance » Merchating Trade and Interest on Import Bills

Available from:**202011**

Merchating trades are transactions when there is a trader in India buying and selling goods from country A and country B with the goods never coming to India. This functionality allows banks to monitor and control the merchating trades.

Lending Compliance » Structured Financial Messaging System (SFMS)

Available from:**202012**

This functionality allows the user to capture the Indian Financial System Code (IFSC) codes of the banks and generate INFINET (Indian Financial Network) Format Number (IFN) messages whenever a transaction happens in the LC (Letter of Credit), BG (Bank Guarantee) or Bills application, that warrants the exchange of messages between two banks or branches within India.

Lending Compliance » IDPMS

Available from:**202102**

This functionality allows banks to manage the import process and transactions. The system allows the issuance of a bill of entry (BOE), the BOE acknowledgement letter, and if needed, the extension of the BOE, settlement and closure. The functionality also allows the user to upload of an outward remittance message (ORM).

Lending Compliance » EDPMS

Available from:**202103**

This functionality allows banks to manage the export process and transactions.



The Reserve Bank of India had launched a comprehensive IT based system called Export Data Processing and Monitoring System (EDPMS) for better monitoring the export of goods and software and facilitating the Authorised Dealer (AD) banks to report various returns through a single platform.

Lending Compliance » Issuance of Electronic Bank Realisation Certificate (eBRC)

Available from:**202103**

This functionality allows banks to create electronic bank realisation certificates (eBRC). The system validates whether the bills are closed in the export data processing and monitoring system (EDPMS) before any eBRC is issued. The user can correct, cancel and re-issue an eBRC.

Payments Information » FIRC Conditional Advice Generation

Available from:**202103**

This functionality allows banks to issue Foreign Inward Remittance Certificates (FIRC). A FIRC acts as documentation for a foreign money transfer. It tracks the amount of the transfer in both the foreign currency and in rupees, as well as where the transfer comes from and where it ends up.

Lending Compliance » SFMS Header

Available from:**202104**

This functionality allows the user to capture the Indian Financial System Code (IFSC) codes of the banks and generate INFINET (Indian Financial Network) Format Number (IFN) messages whenever a transaction happens in the LC (letter of credit), BG (bank guarantee) or bills application, that warrants the exchange of messages between two banks or branches within India.



Israel Model Bank

Fees Optimisation » Non-Execution and Minimum Fee

Available from:**202007**

This functionality allows the user to charge the minimum or the maximum fee for the sum of all partial executions and the non-execution order fee or cancellation.

Price Feed Source Selection » Separate Price Feed for Own Book Revaluation (ICE Feed)

Available from:**202008**

This functionality allows the user to choose multiple price feed sources to change the price per security and portfolio. In addition to the price feed selection, there is also a provision for using the manual price feed, stored in the *Last Price* field in the SECURITY.MASTER application.

Stock Borrowing and Lending Agreement Conditions » Contract Conditions Framework

Available from:**202009**

The functionality allows banks to comply with the Stock Borrowing and Lending (SBL) agreement for borrowing stocks and lending transactions. The ILSBLF.FRAMEWORK.AGREEMENT application allows the configuration of the required lending and borrowing terms at various hierarchy levels.



Matrix Tax Server Interface » Matrix Tax Engine Interface

Available from:**202010**

This functionality allows banks to send the Ex Event Ratio, Index Rate, Security Trust Fund, and the Foreign Currency files to the Matrix Tax Server during the Close of Business (COB). The Matrix Tax Server is used to do the calculations of all Israeli taxes.

Stock Borrowing and Lending (SBL) Agreement Conditions » Contract Conditions Framework

Available from:**202010**

This functionality allows the Securities Borrowing and Lending (SBL) framework to hold certain details, such as the minimum or maximum borrowing or lending amount or percentage.

Collateral Position Management » TASE Collateral

Available from:**202011**

This functionality allows banks to manage the collateral positions by marking and unmarking the bank's security trading positions in the `ILCOPM.COLLATERAL.POSITIONS` application.

Matrix Tax Server Interface

Available from:**202103**

This functionality allows banks to send the Ex Event Ratio, Index Rate, Security Trust Fund and the Foreign Currency files to the Matrix Tax Server during the Close of Business (COB). The Matrix Tax Server is used to do the calculations



of all Israeli taxes.



Italy Model Bank

Customer Account and Transactional Data for Regulatory Reporting

Available from:**202006**

As per the regulatory requirements in Italy, banks can now report, to the Italian Internal Revenue Agency, the details of opening, closing balances, the sum of debit or credit transactions and the average credit transactions on a yearly basis.

SEDA Creditor Registry » Adoption of eMandates

Available from:**202102**

This functionality allows banks to store the SEDA (SEPA - Compliant electronic database alignment) creditor directory file in Temenos Transact that contains the details of each creditor. The activity includes new, amend and delete.

Withholding Tax on Securities Accrued Interest

Available from:**202103**

This functionality allows banks to post Italian withholding tax on accrued interest (which is calculated outside Temenos Transact) to the customer or internal account.



Lebanon Model Bank

Salary Blocking

Available from:**202012**

This functionality allows banks to safeguard loan payments by locking the instalment amount once the salary is credited to the settlement account.

Salary Blocking

Available from:**202101**

This functionality allows banks to safeguard loan payments by locking the installment amount once the salary is credited to the settlement account. The applications such as `SALBLK . SAL . BLOCK . PARAM`, `SALBLK . SALARY . LOCK`, `SALBLK . SALARY . LOCK . HIS` are introduced.



Luxembourg Model Bank

FDR (Fiscalité des Résidents) Tax » Tax Reimbursement on Investment Income

Available from:**202103**

This functionality allows banks to calculate and withhold the Luxembourg FDR (Fiscalité des Résidents) tax. The FDR tax applies on the interest payments, coupons, redemptions, securities sales (sell trades, or transfer out in case of beneficial owner change), the income received by individuals who are fiscally domiciled in Luxembourg and is calculated in addition to the foreign withholding tax.



Mexico Model Bank

Account Parties » Nomination Registration for Accounts and Deposits

Available from:**202006**

This functionality allows bank users to register one or more nominees, for an individual account or term deposit, and control that the percentage allocation summation is equal to 100%.

Account Compliance » Account Product Creation

Available from:**202006**

This functionality allows users to create current and savings accounts with specific characteristics. All the products configured need to be validated and authorised before using them to create accounts.

Account Compliance » Deposit Product Creation

Available from:**202006**

This functionality allows users to define different deposits products offered in Mexico. It provides the option to configure the settings of the products through properties, product conditions, additional settings and product builder.

Lending Compliance » Credit Product Creation

Available from:**202006**

This functionality allows users to create lending products with specific characteristics. It provides the option to configure the settings of the lending products through properties, product conditions, additional settings and product



builder.

Account Parties » Nominee Details in Accounts and Deposits

Available from:**202009**

This functionality allows users to register one or more nominees in an individual account or term deposit and control that the sum of the percentage allocation is equal to 100%.

Customer Compliance » Customer Regulatory Requirements

Available from:**202009**

This functionality allows the user to create records for the different types of customers like new individual, business individual, corporate customers and trust. The user can also create individual, corporate customers, prospects, stakeholders and employers records using the `PERSON.ENTITY` application.



Netherlands Model Bank

iDIN Authorisation Service » iDIN Issuing

Available from:**202010**

This functionality enables banks to offer the iDIN service to customers. This service allows a customer to use the bank's login methods for online shopping and log in to insurance companies or public institutions.

iDEAL Payments » iDEAL

Available from:**202010**

This functionality allows banks to offer their customers the possibility to make payments from their current account using the iDEAL online payment method. In Netherlands, iDEAL is a brand and online payment method for online guaranteed payments in a (web) store.

Currence eMandate » eMandate

Incassomachtigen (Issuing)

Available from:**202011**

This functionality enables the bank to use the Currence eMandate service, for issuing and amending eMandates, based on the request from the debtor (bank customer) from the merchant environment.

Government Order SEPA Direct Debit »

Overheidsvordering (Government Order)

Available from:**202011**

This functionality allows banks to handle the incoming SEPA (Single Euro Payments Area) Direct Debit related to government orders with the validations and the checks specific to the government orders.



iDIN Authorisation Service » iDIN Customer On-boarding

Available from: **202011**

The *Lastname Prefix* and *Cus Initial* fields are added to the CUSTOMER application to capture additional details while generating the response in the NLIDIN.API.CUSTOMER.QUERY.1.0.0 no file enquiry.



New Zealand Model Bank

Customer and Account Infrastructure » Account Number Validation

Available from:**202012**

This functionality allows banks to validate the pay-in or pay-out account number during the arrangement creation based on the PNZ (Payments New Zealand) format.

Open Bank Resolution » Term Deposit

Available from:**202103**

This functionality allows the statutory manager (a special type of user) to split the current balances in the deposits into available funds and frozen funds. The Open Bank Resolution (OBR) is a stage when a statutory manager nominated by a regulator takes control of the bank in case of bank failure. OBR involves a process where the current deposit balances are split into two types of funds, for example, available funds and frozen funds.

Open Bank Resolution » Term Deposit

Available from:**202104**

This functionality allows the statutory manager (a special type of user) to split the current balances in the deposits into available funds and frozen funds.

The `NZOBRS.FUNDS,NZ.FREEZE.INPUT I DEPOSITS` version is introduced to freeze a defined percentage of funds and set up frozen funds within a deposit arrangement which will be later returned to available funds. This unfreezing operation will go on until the release percentage touches 100% for all the deposit products.



Norway Model Bank

Lending » Adjust the Interest Rate When a Loan is Changed before Maturity

Available from:**202012**

This functionality allows banks to offer a dynamic Fixed Rate Agreement which can be either 3 years, 5 years, 7 years, or 10 years. The bank can extend the Fixed Rate Agreement period as desired. Banks can also calculate the premium or the discount when the fixed-rate agreement is breached.

Lending » Adjust the Interest Rate When a Loan is Changed before Maturity

Available from:**202101**

This functionality allows banks to send out messages to the customer using the Temenos Transact delivery framework in a printable or readable format. When the calculated charges of the premium or discount are linked, the calculation specification will be generated as a notice for charge details in printable format.



Qatar Model Bank

Account Infrastructure » Customer Info Capture and Regulatory Codes

Available from:**202012**

This functionality allows banks to capture customer data and information relating to corporates (and other business entities) as required by regulatory authorities.

Account Infrastructure » Dormant Accounts

Available from:**202012**

This functionality allows banks to set up the dormancy statuses and to extract reports containing the accounts with various dormancy statuses and details of the transactions that happened in an internal account when the account is closed due to unclaimed status.



Saudi Arabia Model Bank

Account Freezing-Unclaimed Accounts and Posting Restrictions

Available from:**202005**

The Account freezing-Unclaimed Accounts and Posting Restrictions functionalities have been developed, which allows the user to apply posting restrictions at the customer or account level. The user can also monitor the statuses of the customer's account, as the status of an active account can change sequentially when there are no transactions posted in the customer's account for a specific period.

Customer Documentation ID Expiry

Available from:**202005**

The Customer Documentation ID Expiry functionality has been developed, which allows the user to create alerts for the legal ID expiring dates of Saudi nationals, non-Saudi nationals or expats, special cases, minors and veiled women. The user can also create posting restrictions for these types of accounts before and after the expiry date.

Watheeq Services

Available from:**202005**

This functionality allows the bank to integrate with the Watheeq Edge system. The Watheeq Edge system supports the integration of financial institutions with various statutory organisations of Saudi Arabia. Watheeq Edge has control over the fulfillment of Saudi Arabian Monetary Authority (SAMA) requests. It parses each SAMA request into various parts and calls different integration operations to construct the SAMA response.



Account Infrastructure » Account Freezing and Unclaimed Accounts

Available from:**202006**

This functionality allows the user to apply posting restrictions at the customer or account level. If the account dormancy status is abandoned, then, the system locates the arrangement from the concat file and removes the unclaimed or dormant posting restriction.

Customer Infrastructure » Customer Documentation ID Expiry

Available from:**202006**

The `EB.ALERT.REQUEST` application is introduced, where the user can create a record to define all the available alert events. The messages and alerts that are sent to the client will be stored in the `EVENT.LOG` application.

Watheeq Services

Available from:**202006**

This functionality allows the bank to integrate with the Watheeq Edge system. Get Account Details, Get Account Balance, Get Deposits List, Get Liabilities List, Get Product Users List, Get Safe List and Get Shares List services of Watheeq are used to establish interactions between the Saudi Arabian Monetary Authority (SAMA) and the financial institutions.

Early Closure Charges » Minimum or Maximum Rate

Available from:**202008**

This functionality allows users to calculate the maximum and minimum interest



rates for products. The rates will be recorded based on Saudi Interbank Offered Rate (Sibor) rates. The calculation of the maximum and minimum rate is done at the time of revision.

Customer Infrastructure » Foreign Currency Exchange

Available from:**202008**

This functionality allows banks to manage the requests raised by non-customers to perform foreign exchanges from foreign currency to local currency. Each transaction has to be within the transaction and cumulative limit which is based on the legal document or visa type.

AI ELM Interface - Yakeen Services » Customer ID Check

Available from:**202009**

This functionality allows banks to query the Yakeen system to verify customer information as part of the customer onboarding process. Yakeen is a third party system offering many services. Yakeen services are used to validate customer information during the onboarding process.

Goods and Services Tax

Available from:**202009**

This functionality allows the user to calculate the output Value Added Tax (VAT) on liable income sources. VAT is applied to all charges collected from customers.



Customer Infrastructure » Specific Account Products

Available from:**202010**

This functionality allows banks to follow the rules set by the Saudi Arabia Monetary Agency (SAMA) for opening new accounts and create new customers.

SIMAH Credit Bureau Interface » SIMAH File Naming Convention

Available from:**202010**

This functionality allows banks to report the Performing/Regular file by product wise and also report the monthly update file which contains all the active contracts. The file name format is changed to <Member Code>_<TYPE>_<Temenos Transact Product Name>_<Frequency>_<Date YYYYMMDD>.xml.

Early Closure Charges » Customer Deposits

Available from:**202012**

This functionality explains the solution related to how the rates used for the staff deposit and collateral are changed when the deposits are not for staff and the collateral is no longer attached to the deposits.

Hijri Date Conversion » Standing Orders

Available from:**202012**

Banks in Saudi follow the Hijri calendar and not the Gregorian one. This functionality allows banks to create a standing order using the Hijri date. They can also stop or disable a standing order (STO) for the customers whose legal IDs have expired.



SIMAH Credit Bureau Interface » Handling Loan Reversal

Available from:**202012**

This functionality allows banks to report the files already reported and reversed to Saudi Credit Bureau (SIMAH) with the status set as cancelled.

Early Closure Charges » Auto Ijara

Available from:**202101**

This functionality facilitates the calculation of the Partial Early Settlement (PES) charges as per the SAMA regulation. The functionality also covers some additional validations for allowing Partial Early Settlement (PES) transactions.

Account Infrastructure » Account Statements

Available from:**202103**

This functionality allows banks to provide account statements that include all the relevant information for the transaction types. Each transaction must contain details related to the delivery channel, debit information in case of debit transactions, and credit information in case of credit transactions.

WatheeQ Services

Available from:**202103**

This functionality allows banks to ban or deny a customer from dealing with the bank and to lift all restrictions done against a customer and return the customer info details.



Account Infrastructure » Account Statements

Available from:**202104**

This functionality allows banks to manage cash deposits, cash encashment, cash withdrawal, credit card payments, account funds transfers, entitlement transactions, inward clearing, direct debit transactions, SWIFT and SARIE transactions.



Spain Model Bank

Funds Catalogue Addendum

Available from:**202005**

AFB sends the funds commercialised by the bank and the information in the 71, 73, 74, 20 and 90 records. These records contain instrument-level details and are provided by AFB to update the distributor's structural, functional, and operational information about the funds available in the bank. This functionality will assist the bank to read additional record types 73, 74, 90 and additional fields in record types 71 and 20 that are part of the incoming files from AFB.

Withholding TAX Pending Charges

Available from:**202005**

This functionality supports tax calculations and processing with respect to withholding for Personal Income Tax (PIT), Corporate Income Tax (CIT) and Non-Resident Income Tax (NRIT) in the context of Spanish laws for capital gains and various corporate action events, wherever restricted by the bank to withhold taxes.

Allfund Bank (AFB) Interface

Available from:**202006**

Temenos Transact groups all the rebalancing orders received from TAP and generates the flat file, at end of the day, to be sent to AFB.

Cheques and SNCE Clearing

Available from:**202006**

This functionality manages the processing of the interbank fees defined for SNCE03, SNCE04, SNCE05, SNCE07 and SNCE08.



Cheques and SNCE Clearing » Partial Cheque Returns

Available from:**202007**

This functionality allows the bank to clear a cheque to the extent of amount that is requested by the customer, and the balance amount that is unpaid in the cheque will be returned.

Cheques and SNCE Clearing » Regulatory Requirement for SNCE04

Available from:**202007**

The exchange of cheques is carried out using the SNCE04 proprietary message format. The record of the SNCE04 inward files and outward files from the `DFE.MAPPING` application contains the maximum limit definition to indicate if the instrument will be marked as truncated or non-truncated. This configuration will hold the revised limit amount.

Customer Infrastructure » AJD Notary and Other Fees

Available from:**202007**

As part of the AJD Notary and Other Fees functionality, a new product configuration is released for the vendor product (notary) to capture the additional fees, which are paid by the bank to notary.

Informa Interface » Informa AnaCredit Report

Available from:**202007**

The *Duns Number* field is added in the `CUSTOMER, CORP.ES` version to accommodate the DUNS number. The DUNS number is a unique nine-digit



identification sequence that provides unique identifiers of single business entities, while linking corporate family structures together. The `INFORMA . ANACREDIT . DETAILS` application stores the information received from Informa.

SEPA Iberpay » Cut-off Changes for SEPA CT

Available from:**202007**

As part of this functionality, a new cut-off time is available for Single Euro Payments Area (SEPA) credit transfers (CT). The payments initiated after the cut-off time will have the settlement day as the next working day.

SEPA Iberpay » Order Accounts for Domiciled Payments

Available from:**202007**

This functionality allows banks to create entries to contingent accounts to recognise the risk associated with a direct debit return after a certain number of days, as permitted by Spanish clearing regulations. As part of this functionality, new configuration records are released in the `PP . STATUS . ACTION` application, along with the API for different statuses (for example, 706 and 999) of the direct debit processing.

Special Institutions Interfaces » Embargo Payments

Available from:**202007**

This functionality allows the users to unblock the files received from the tax authorities: AEAT (Agencia Estatal de Administración), Navarra, and Guipuzkoa territories.



Tax Payments Collections » Cancellation File to AEAT

Available from:**202007**

This functionality includes the following:

- Validation of the tax model codes.
- Generation of the outward files to AEAT based on the AEAT calendar.
- Cancellation of tax payments based on the customer request.
- Processing bulk tax payment transactions.
- Recycling of transactions for tax payments.

Special Institutions Interfaces » Embargo

Available from:**202008**

This functionality allows users to process the Phase A, B, C and un-blocker files received from the tax authorities: AEAT (Agencia Estatal de Administración Tributaria) for rest of Spain, and Navarra and Guipuzkoa for territories.

Cheques and SNCE Clearing » SNCE03 Regulatory Requirement for Account Verification

Available from:**202008**

This functionality allows banks to send and receive account customer validation messages to or from participating banks across Spain through the Iberpay communication services on a 24x7 schedule.



Allfund Bank (AFB) Interface » Automated Generation of Legal Documentation for International Funds

Available from:**202010**

This functionality allows banks to generate a report in XML format to customers to advise them that the cut off time of a security has changed.

Lending and Mortgages » Mortgage Act 2019 Early Repayment & Cancellation

Available from:**202010**

This functionality allows banks to calculate and charge compensatory fees when early refunds are triggered by customers, considering the thresholds and rules established in the Spanish Regulation for Mortgages and Loans, 2019 LCCI (Ley Reguladora de Contratos de Crédito Hipotecarios).

Lending and Mortgages » APR for Multi-Tier Interest Rate Loans

Available from:**202010**

This functionality allows banks to see the highest Annual Percentage Rate (APR) rate in the stimulation overview screen so that banks can consider the worst-case when calculating the APR for multi-tiers interest loans to the customer.



Cheques and SNCE Clearing » SNCE08 Improvements

Available from:**202012**

This functionality allows banks to process the SNCE08 message for SEPA (Single Euro Payments Area) Credit Transfer (SCT) outward and inward requests, and for SEPA Direct Debit (SDD) outward and inward requests for the transaction types 10 and 14.

All Fund Bank Interface » Funds Catalogue

Available from:**202102**

This functionality allows banks to store the details from the 73 file record provided by Allfunds Bank.

All Fund Bank Interface » API Online Message Generation

Available from:**202102**

This functionality allows banks to send the *Distributor Code Api*, *Sub Distributor Code Api* and the *Product Code* details in an API message to AFB based on the configuration done in the `ALLDND.AFB.PARAMETER` application.

Cheques and SNCE Clearing » SNCE08 Initiations Additional Outgoing

Available from:**202103**

The SNCE08 miscellaneous payment is a payment mechanism used in Spain for processing payments or collections. These are the payment instructions for all payments, which were not able to meet the standard clearing cut-off time. Every incoming SNCE08 is two-way communication in case of rejects on the



recipient side. This functionality allows banks to send and respond to the SNCE08 messages.

Cheques and SNCE Clearing » SNCE08 Initiations Additional Outgoing

Available from:**202104**

This functionality allows banks to send and respond to the SNCE08 messages. Also, the system will apply charges on the incoming and outgoing messages.



Sri Lanka Model Bank

Provisioning and Collateral » Collateral Management

Available from:**202006**

Temenos Transact is enabled to maintain the different types of collateral with different data fields and rules defined for each collateral type. The details captured under the collateral types will be utilised for provision calculation, collateral management, and other reporting requirements.

Provisioning and Collateral » Non-Performing Loan Parameters and Consumer Lending

Available from:**202006**

This functionality handles the classification of credit facilities like overdraft and loans as non-performing, based on specific conditions. It allows users to manage classification or declassification of loans and overdrafts as per the rules defined in the `LKPVCO.PARAMETER` application.

Lending » Parameters on Restructure of Facilities

Available from:**202006**

This functionality allows banks to track the number of times a facility has undergone restructure or reschedule and impose a monitoring period for a restructure or rescheduled facility.



Dormancy » Dormancy and Abandonment Property

Available from: **202007**

This functionality allows users to classify bank issued instruments like pay order as abandoned property, if an instrument remains unrealised for a specific period of time after its expiry date.

Provisioning and Collateral » Non-Performing Loan Parameters

Available from: **202008**

This functionality enables users to classify credit facilities like overdraft and loans as non-performing, based on specific conditions.

Provisioning and Collateral » Collateral Management

Available from: **202008**

This functionality allows users to create different classes of collaterals with rules defined for each class. The rules defined for each collateral class will decide whether the collateral type can be considered for provision.

Goods and Services Tax » VAT Tax on Cheque Charge

Available from: **202009**

This functionality allows the user to calculate the Output Value Added Tax (VAT) based on liable income sources. VAT is a tax on domestic consumption of goods and services. There are two types of VAT taxes: Input and Output VAT.



IFRS9 Impairment

Available from:**202009**

This module allows banks to classify the credit facilities, including loans and overdrafts, non-fund based facilities, bank guarantees, and letters of credit as per the IFRS (International Financial Reporting Standards) regulations. Also, the ECL (Expected Credit Loss) is calculated based on specific criteria.

Withholding Tax

Available from:**202009**

This module allows users to calculate the tax for all joint holders of an arrangement. Temenos Transact will split the tax for customers.

Foreign Exchange Transactions Reporting » Form 1 and 2 Extract

Available from:**202102**

The functionality allows banks to report the list of foreign exchange transactions carried out by customers to the foreign exchange department in a pre-defined format given by the bank. The report can be extracted as per the frequency configured by the bank.



Switzerland Model Bank

Securities Reporting » SIX Transaction Reporting

Available from:**202007**

The SIX Transaction Reporting functionality has been enhanced to comply with regulatory requirements. This functionality supports the upload of the ISIN's (International Securities Identification Number) file received from the SIX server and the eligibility of a report transaction.



Tunisia Model Bank

Customer Infrastructure » Customer and Customer Relationship Management (CRM)

Available from:**202008**

This functionality allows the validation of the legal documents that need to be submitted by the customer when creating a customer record.

Customer Infrastructure » Customer and Customer Relationship Management

Available from:**202009**

This functionality allows the validation of the legal documents that need to be submitted by the customer when creating a customer record.

Account Infrastructure » Account Statement, Chequebook or Passbook

Available from:**202010**

This functionality allows banks to check the customer's eligibility for issuing chequebooks and generate account statements in the AFB120 format.

Customer Infrastructure » Garnishment Handling

Available from:**202010**

This functionality allows users to create garnishment orders and freeze the funds from customer accounts.



Foreign Currency Operations » Business Travel Allowance

Available from:**202011**

This functionality allows users to open, amend, and renew business travel allowances (AVA) files.

Foreign Currency Operations » Foreign Currency Limit Management and Sub Delegation

Available from:**202011**

This functionality enables banks to handle the foreign currency operations based on the currency guidelines set by the government and (CBT) Central Bank of Tunisia. The foreign currency operations are processed within the authorized limits granted by CBT and set by banks in addition to managing and tracking their usage.

Foreign Currency Operations » F1 or F2 Authorization Request

Available from:**202012**

This functionality allows banks to store the details of the F1 or F2 sheet, which has to be sent to the Central Bank for authorisation to proceed with the prohibited transactions.



Foreign Currency Operations » Information Sheet

Available from:**202012**

This functionality enables banks to create the information sheets for making any payments in foreign currency and report to the Central Bank of Tunisia for the services opted by the customers.

Foreign Currency Operations » Foreign Trade Title

Available from:**202101**

This functionality allows the banks to receive and store the foreign trade title information from the TTN (Tunisie Trade Net) interface, as well as amend and cancel the trade title. Information related to customs imputation can also be stored.

Foreign Currency Operations » Foreign Trade Title Clearance

Available from:**202101**

This functionality allows banks to send reports to the Central Bank of Tunisia regarding foreign trade titles. It also allows the update of the imputation, settlement and reservations manually.

Customer Infrastructure » Garnishment Handling

Available from:**202101**

The functionality allows users to create garnishment orders and freeze the funds from customer accounts. It also allows users to block and unblock securities, the



details being available in the SC . BLOCK . SEC . POS application.

Foreign Currency Operations » Business Travel Allowance

Available from:**202102**

This functionality allows users to open, amend and renew business travel allowances (AVA) files. It also allows the manual renewal, suspension and closure of the AVA records.

Foreign Currency Operations » Foreign Trade Title Clearance - TCE Clearance

Available from:**202102**

This functionality allows banks to send reports to the Central Bank of Tunisia regarding foreign trade titles. It also allows the update of the imputation, settlement and reservations manually.

Foreign Currency Operations » Schooling Professional Training File

Available from:**202102**

In Tunisia, there is a practice to produce the schooling professional training file which will be used to make the payments for expenses, fees and other expenses for the schooling or training in foreign countries. This functionality allows banks to manage the schooling professional training file (capture, amend, renew, release, close and export).

Clearing » File Processing

Available from:**202103**

This functionality allows banks to register, amend and cancel Tunisian direct



debit mandates through the Tunisia Clearing House (SIBTEL). It also allows banks to generate outward DD mandate files for mandate records created in the system and sending them to SIBTEL.

Foreign Currency Operations » Foreign Currency Limit Management and AVA Issuance



Available from:**202103**

This functionality enables banks to handle the foreign currency operations based on the currency guidelines set by the government and (CBT) Central Bank of Tunisia. The foreign currency operations are processed within the authorized limits granted by CBT and set by banks in addition to managing and tracking their usage. When a customer wishes to get a foreign currency banknote using the AVA contract, the system will check the travel allowance amount in the AVA contract.

Foreign Currency Operations » Incoming Transfer



Available from:**202103**

This functionality allows banks to capture the regulatory information for incoming payments in foreign currency. The incoming payments in foreign currency are either associated with one or multiple titles or business travel allowance.

Foreign Currency Operations » Export Documentary Credit



Available from:**202104**

This functionality allows banks to link the EDC (Export Documentary Credit) settlements with the underlying TCE (Foreign Trade Title) and AVA (Business Travel Allowance) records so that the payments will be processed accordingly,



irrespective of the fact that TCE or, and AVA is domiciled in the bank or not. The system will perform various validations to ensure that the EDC payment is allowed to be created only if the available amount is greater than the payment amount, in the case of TCE.

Foreign Currency Operations » Outgoing Transfers

Available from:**202104**

This functionality allows banks to initiate payments towards schooling or professional fee as an ad-hoc payment or as a frequency-based transfer. The underlying title document will be validated while initiating outward transfer towards the schooling or professional fees, trade-related, and other restricted transactions. Also, Temenos Transact allows banks to generate the information sheet on the successful completion of the schooling payments.



United Kingdom Model Bank

Open Banking Payment Initiation

Available from: **202006**

UK Open Banking entails banks and financial institutions to facilitate payments initiated by users using third-party provider (TPP) software applications through the Open Banking Interface APIs provided by banks.



United States Model Bank

Core » GL Average Balances

Available from:**202006**

This functionality allows banks to calculate and generate GL Average Balances for select GL lines, including generating reports on a monthly or quarterly basis.

US Regulations » Corrections Before IRS Filing



Available from:**202008**

This functionality will allow the financial data to be corrected without raising financial entries in the system.

Payveris Interface - Bill Pay and P2P » Payveris Bill Payments

Available from:**202008**

This feature processed the posting file from Payveris for the bill payment and P2P payments to debit or credit the customer's account and post the settlement entries to the clearing account.

Remote Deposit Capture Interface » Alogent - RDC - Mobile Capture

Available from:**202009**

This functionality provides an interfacing capability from Transact to Infinity (Temenos's mobile banking app) to process outward check transactions deposited through Alogent's mobile capture solution.



ACH Framework » Outbound Fed Settlement and TC Mismatch

Available from:**202011**

An existing ACH Framework module has been modified to have the ability to reject or accept incoming ACH credit and or debit transactions if the account type does not match with the transaction code. For outgoing ACH credit and debit transactions, settlement entries (ACHCTIOS or ACHDDIOS) will be warehoused on the processing date and released on SOD of the effective date.

Inward Check Clearing and Check 21 Interface » Check 21 Inward Clearing

Available from:**202011**

This functionality allows users to process incoming check clearing and returns files. Any exceptions in processing the incoming clearing will generate an exception file to be sent to Fed.

Regulations » Corrections after IRS Filing

Available from:**202011**

The IRS component that is part of the Regulations module is enhanced to allow bank users to send corrected returns to the IRS. This functionality will allow the bank to send step-1 corrected and step-2 corrected returns to IRS.

Regulations » FIRE File Reformat

Available from:**202011**

This functionality allows the system to use the IRS FIRE system, that it is the electronic network used to accept and process most types of filing forms. The data is updated in the IRS FIRE format for all the supported tax forms.



Regulations » IRS 5498 Reporting

Available from:**202011**

This functionality provides consolidation of reportable amounts and information needed for IRS form 1099-R and 5498. Users can generate the FIRE file for form 1099-R and 5498.

Single Customer View » Beneficiaries on SCV

Available from:**202101**

The Beneficiaries on SCV functionality introduces changes o Single Customer View. It introduces tabs such as Beneficiaries and Address tabs.

Retail » Statements

Available from:**202103**

Periodic statements generated by financial institutions in the U.S. follow certain regulatory standards, which require them to include information regarding overdraft fees charged during the statement cycle and year-to-date. Additionally, statements also show details of checks paid to a customer during the statement cycle.

The *Usretl Sup Susp Narr* field was added to the `AC.ENTRY.PARAM` application. If it holds the value YES then the system will suppress the narrative change in the `AC.STMT.ENTRY` application when exception transactions occur.

Regulations » Tax Certification Type

Available from:**202103**

This functionality allows banks to use the certification type of the customer as criteria for Irs Tax reporting.



| Retail

Arrangement Architecture » Cooling Convention for Working Days

Available from: **202005**

To consider only the working days while calculating the cooling date, the *Cooling Convention* field is created in the Closure Property, which allows the financial institutions to choose working days while arriving at the cooling date for a loan contract. If this field is left blank, then the cooling date is calculated considering all the days.

Arrangement Architecture » Processing of Pending Unpaid Bills

Available from: **202005**

It is now possible to recover the funds from the new changed account number to support the current older outstanding due bills, thereby providing the flexibility to change or add account numbers.

Retail Lending » Automatic Disbursement of Top up Loans

Available from: **202006**

This functionality allows the disbursement of both the new arrangement and the Increased loan amount automatically with no dependency on Payment Schedule conditions.

Click [here](#) to understand the technical impact of this enhancement for



customisation and upgrades.

Arrangement Architecture » Configuring Non-Customer Facing/Internal Charges (NCFC)

Available from: **202006**

Arrangement Architecture (AA) supports for calculation, application, and amortisation of customer facing charges is now extended to non-customer facing charges, as well.

Click [here](#) to understand the technical impact of this enhancement for customisation and upgrades.

Arrangement Architecture » Splitting Negative and Positive Interest Rates

Available from: **202006**

System now supports separate positive and negative interest capitalisation entries along with separate transaction descriptions for capitalised positive and negative interests on the customer account.

Click [here](#) to understand the technical impact of this enhancement for customisation and upgrades.

Arrangement Architecture » Activity Level Exclusion for APR Calculation

Available from: **202006**

The APRC process is enhanced to exclude specific activity from CASHFLOW



Type Activity and thereby allowing additional control of Activities. This can be done using the *Exclude Activity* field in the Reporting Product Condition.

Retail Deposits » Generating a Payment Order for Partial Withdrawal of Deposits

Available from: **202006**

This feature enables a consistent approach to match the full deposit redemption flow and a better cash management ability to make external payments.

Retail Lending » Loan Payoff from Payoff Statement

Available from: **202007**

Loan Arrangement Overview screen is enhanced to provide the Settle by Payment Order option, through which the user can perform loan payoff instantly.

Arrangement Architecture » Projecting Progressive Payment for Future Disbursements

Available from: **202007**

The payment amount for future scheduled disbursements can now be calculated progressively and projected to the customer on the arrangement date.

Arrangement Architecture » Overriding Capitalisation Amount

Available from: **202007**

There are instances where bank prefers to check for a minimum balance before capitalising any debit interest or charges. This is achieved by defining an user



API that validates during the capitalisation of interest, charges and decides if it should override the capitalisation amount and restrict overdraws in the account.

Arrangement Architecture » Multiple Disbursements for Upfront Profit Flat Rate Contracts

Available from: **202007**

Upfront profit contracts with a flat rate of profit calculation can have multiple disbursements and the profit amount is calculated for the financed period.

In upfront profit contracts with a flat rate of profit calculation, a custom routine can now be attached to the Interest condition to define the conditions for recalculation of the profit amount in the contract.

Retail Lending » Manually Ageing an Arrangement

Available from: **202007**

Classifying the asset to the worst status based on the customer repayment behavior in other arrangements or any contracts is facilitated now through manually ageing an arrangement.

Arrangement Architecture » Calculating Memo Interest using Routines

Available from: **202007**

Banks can now have memo type of interest calculation on the non-contingent balances of the account in specific scenarios.



Arrangement Architecture » Capitalisation of Interest Accruals

Available from: **202007**

The interest accruals during initial grace period for a loan repayment can now be capitalised to the principal amount.

Arrangement Architecture » Generating IBAN

Available from: **202008**

Bundles is now enhanced to generate an IBAN by attaching a customised routine in *Alt Acct Gen Api* field in `ALT.ACCT.PARAMETER` table. The routine returns a dummy account number based on which the IBAN is generated.

Collections » Monitoring Multi-Currency Collections

Available from: **202008**

Various attributes are introduced in the `CL.PARAMETER`, `CL.COLLECTION.ITEM` and `CL.ACTIVITY` tables to support:

- Monitoring of overdue contracts in multi-currencies.
- Recording collection outcome in any foreign currency and viewing the equivalent local currency amounts.
- Collection of AA overdues and Past Dues in all currencies.

Arrangement Architecture » Repayment Calculator

Available from: **202008**

Customers availing a loan (like Fixed Mortgage) can now know the following details using the Repayment Calculator without contacting the bank.



- Repayment Amount
- Total Interest Amount
- Total Fees
- Total Repayment Amount (Loan Amount + Total Interest + Total Fees)

Retail Lending » Flexible Repayment

Available from: **202009**

The flexible repayment is enhanced with the following key features.

- Payment modification of a bill that is already issued (that is, a pre-notified payment)
- Finalisation of payment amount where it provides a period until which an issued bill can be modified, beyond which, the payment is finalised and any changes can be accepted only for the next payment date. This can be achieved using the payment holiday.
- Standard reverse and replay process, thereby updating the flexible repayment limit based on the change for any recalculation of scheduled payments when a flexible repayment is in force.
- Limit utilisation and restoration when the payment amount is increased or decreased.
- The user to see the original payment amounts while declaring holidays.

Arrangement Architecture » Enquiry for AA Specific Accounting Entries

Available from: **202009**

The `TXN.ENTRY.MB` enquiry is now enhanced to display the entries based on Arrangement ID and Activity ID. The enquiry is also made accessible through context sensitive enquiries (using *More Actions* tab) of

`AA.ARRANGEMENT.ACTIVITY`.



Retail Lending » Ageing Deferment of Installment Falling on a Non-Working Day

Available from: **202009**

The *Pre Grace* attribute is introduced in the Overdue Property Class, which enables the user to configure the system to defer the first overdue processing till the end of the immediate working day when an installment falls on a holiday.

Arrangement Architecture » Recalculating Term for Forward Dated Payment Conditions

Available from: **202009**

The system now supports recalculation of the term, on loans that have payment conditions effective from a forward date which was earlier restricted by means of an error.

Retail Lending, Retail Deposits and AA » Risk Free Rates

Available from: **202010**

The Lending and Deposits modules in Temenos Transact now support Risk Free Rates (RFRs) processing. The Interest Property Class in AA is enhanced with new attributes to accept appropriate market conventions and compounding methodology and options for margin treatment to support RFRs.

Retail Accounts, AA » Migration of Overdrawn Accounts

Available from: **202011**

To allow continuing overdraft ageing from the legacy system post migration, the Limit Property Class is enhanced with new attributes to capture the first overdraft



date from the legacy system during the takeover. Eventually, `ACCOUNT . OVERDRAWN` gets updated automatically on authorisation of the takeover activity.

Islamic Banking » Advanced Settlement of Bills – Upfront Profit Arrangements

Available from: **202012**

When the customer makes an advance repayment for one or more upcoming bills, the system can be configured to book the income to the PL immediately or over the advance payment period (known as the respite period).

Transaction Recycler » Defining Recycler Priority for Bill-Type wise Settlement

Available from: **202012**

When there is more than one bill pending for settlement against a settlement account, it is possible to sort them based on the aging status, bill date or the bill amount. It is now possible to prioritize bills pending for settlement based on the bill type as well.

Arrangement Architecture » Residual Principal in Payment Schedule

Available from: **202101**

If a *Residual Amount* is set for a contract, the Payment Schedule projection is changed to reflect the same along with the last installment's *Total Due* at the time of loan creation itself. Thus, the outstanding amount after the last installment is always zero. The details are also seen in the Schedule Details enquiry.



Arrangement Architecture » Suspend or Resume Accrual or Amortisation of Credit Charge

Available from: **202102**

This functionality suspends or resumes the accrual or amortisation of a credit type charge for a non-performing loan. When the loan moves to non-performing status, the accrual or amortisation of the underlying credit charge is suspended and the associated accounting entries are posted to suspended balance.

Arrangement Architecture » Stop Suspend and Resume Charge Amortisation

Available from: **202102**

The Stop Suspend Property Type allows to:

- Stop the amortisation of the charges - both Customer and Non Customer facing charges [ACC<CHARGE>]
- Stop the amortisation of the charge under a suspended loan and it is neither posted to Suspend bucket nor P/L.
- Let the unamortised portion of the charge stays in the same balance until the loan is regularized or resumed.
- Set the charge to *Suspend* or *Stop Suspend*.
- Set charges to Amort or Sets Amort Defer for 'Stop Suspend' behaviour.

Arrangement Architecture » Mandatory Alerts for All Delivery Customers

Available from: **202102**

Temenos Transact allows alerts to be sent to other account holders along with the primary customer for mandatory subscriptions in their preferred channel.

To enable this feature, the *Send Alerts To All* field is introduced in `TEC . ITEMS`



that allows the user to define if the mandatory alerts must be sent to all the account holders.

Loans and Deposits » Lending Deposits - Risk-Free Rates

Available from: **202102**

As the IBOR rates are retiring at the end of 2021, to replace these rates, Risk-Free Rates (RFR) are introduced with spread inclusive and exclusive methods in LD module. Risk Free Rates are backward-looking rates and are based on the actual transaction data.

These are published with a lag. Also, no credit risk elements are involved while calculating the risk-free rates.

Retail Lending » Weighted Average Rate (WAR) for Multiple Disbursement Tranches

Available from: **202103**

In banks for lending products which have disbursement in tranches, each tranche has its own interest rate. Banks prefer an option to enable the calculation of a weighted average interest type for such loans having multiple disbursements.

The Weighted Average Rate (WAR) feature of the existing Arrangement Lending (AL) module ensures that the banks can apply individual loan interest rates for each disbursement initiated within a single loan contract and calculate the WAR for the arrangement that is re-calculated every time a new disbursement is performed and also whenever a rate reset happens.

Each time a new disbursement is initiated, the system checks for its applicable rate and retrieves the Weighted Average Rate (Effective Interest).



Retail Lending » Repayment Order

Available from: **202103**

In an overdue loan scenario, banks prefer to settle the tax component first before collecting the other components of the loan. This enables banks to collect the tax (either fully or partially) when there is a partial payment on the loan. Besides, banks also prefer to sort the bills generated on same date (by the bill amount).

This feature now aids both the preferences.

- Banks can now prioritise the repayment amount to settle the tax component first. To enable this feature, the *Tax Settlement* field is introduced in the Payment Rule Property Class. The allowed values of this field are:
 - **Separated** - Sequences the Tax Property in the *Property* field in Payment Rule product condition.
 - **NOTE:** This feature is not applicable for advance and principal decrease payment rule type.
 - **Prorate** - Indicates the existing behaviour and also the default value where Tax should be calculated and collected on a pro-rated method based on the repaid amount.
- The repayment order for settlement of bills raised on the same date can be based on the total outstanding amount in the bill. To enable this feature, the *Repayment Order* field is introduced in the Payment Rule Property Class. The allowed values are:
 - **Highest or Lowest** - Based on this, the repayment order is set for settlement of bills on the same date based on total bill amount namely the highest or lowest amount respectively. After a partial settlement, when there are two bills with two different outstanding payment amounts, the bills are prioritised based on the highest or lowest outstanding amount in the bill.
 - **Blank (Not set)** - The existing behaviour continues, that is, the repayment order for settlement of bills with the same date is in the order of generation of the bill (random order).



Retail Lending » Percentage Calculation for Principal-only Payments

Available from: **202103**

This functionality calculates the percentage repayment amount for Principal-only payments. It is now possible to restrict the payment percentage to the defined maximum percentage in Payment Schedule conditions.

Product Management » Multi-Currency Account Product Line

Available from: **202103**

The Multi-Currency Accounts (MCYAAR) module in AA now allows the user to hold multiple currencies under a single account structure and carry out multi-currency transactions using the same account details (beneficiary name, IBAN, account number). The following are the key features and related benefits that a Multi-Currency Account provides:

- Ability to hold, send and receive money multiple currencies under one financial account providing convenience and ease in managing multiple currencies. This also facilitates mitigating the risk with foreign exchange rate fluctuations.
- Ability to define a base currency for the multi-currency account and link sub-accounts in any currency offered by the bank
- Ability to convert the different currencies into the local (base) currency as required
- Flexibility to route credit transactions to the sub-account of same currency with that of payment currency
- Ability to report currency-wise balances or an aggregated account balance in base currency
- Flexibility to keep funds in the currency of an incoming transaction until it is convenient to convert it
- Reduced transaction costs.



Arrangement Architecture (AA) and Retail Lending » Pre-Constructing Payment Schedule Conditions

Available from: **202103**

The AA Payment Type framework is now enhanced to allow a pre-defined configuration of Payment Schedule. The user can then simply choose the Payment Type and default the needed Payment Schedule definitions without having to construct it every time. This automatic assigning of default values to the Payment Schedule minimises the overwhelming operations maintenance overhead when a unique percentage has to be populated for the arrangements thereby avoiding repetition.

Retail Accounts » Notice for Withdrawal of Fund

Available from: **202103**

The Notice withdrawal functionality is moved inside AA framework and a Notice Withdrawal Transaction class is added to AA . These end-to-end notice withdrawal capabilities makes it possible for the banks to charge penalty fee from the customer whenever they execute a debit transaction without providing notice or when the pre-configured conditions are not met. Also this feature facilitates monitoring of un-authorized withdrawals and levying of charges.

Arrangement Architecture (AA) and Retail Lending » Capturing EIR or AMC Information During Migration

Available from: **202104**

During the migration or conversion of a bank's loan portfolio, the EB Cashflow Capture application (which is available outside AA) has been allowing the user to capture the EIR or AMC and also fetch the cash flows from AA contract. Now,



it is possible to achieve this within AA using the TAKEOVER.CASHFLOW-REPORTING activity. Using this cashflow type activity class, in AA, the user can now capture EIR or Carry cost associated with a loan during migration or takeover activity.

Arrangement Architecture (AA) and Retail Lending » Income Recognition Using Cost-Recovery Method

Available from: **202104**

In the new Cost-Recovery method, the system stores the repayment amounts in a Recoveries During Suspend (RSP) balance type which represents the recovery or repayment amount made on the suspended loan toward interest. When the loan is resumed, the RSP portion of the loan is amortized over the remaining life of the loan on a straight-line basis using `EB.ACCRUAL` under an ACR prefix. ACR represents the unamortized RSP amount which is realized to income.

If the suspended loan is paid-off, then the recovery amount is fully realized to income account.

Click [here](#) to understand the technical impact of this enhancement for customisation and upgrades.

Retail Deposits and Retail Lending » Migration of LIBOR Contracts to Risk Free Rates (Lending and Deposits)

Available from: **202104**

(L)IBOR rates are retiring by the end of 2021. To facilitate the banks to migrate large volume of existing contracts from (L)IBOR to RFR rates , Temenos Transact is enhanced with a migration tool called RFR Migration to do the



migration in one go. The intelligence is built inside the utility by defining the attributes inside `RFR.MIGRATION` and `RFR.CONDITION` tables to select list of contracts that require migration. The migration process happens in two-steps:

- **Preview Mode** – In this mode , the user can preview the selected records that are built inside the `RFR.CONDITION` table and verify the results based on the defined selection criteria.
- **Execute Mode** - The migration happens in this mode and thus (L)IBOR contracts are converted to RFR rates successfully.



Technology

Data Framework

Semantic Query Layer » Security Authorisation for Semantic Query Layer

Available from: **202005**

Security authorisation is imparted to Semantic Query Layer (SQL) through XACML policies using Temenos Security Framework (TSF) to support XACML based authorisation in all GraphQL requests. The SQL can now restrict access to resources managed by Operational Data Store (ODS) APIs, upon defining policies through individual requests and apply access restrictions at API and attribute levels.

Click [here](#) to understand the technical impact of this enhancement for customisation and upgrades.

Click [here](#) to understand the installation and configuration updates for this enhancement.

Data Lifecycle Management » DLM Supports NuoDB Database

Available from: **202005**

The Data Lifecycle Management (DLM) module is enhanced to support NuoDB database along with MSSQL, ORACLE and DB2 databases.



Operational Data Store/Snapshot Data Store» TDL Support in Azure Cloud Platform

Available from: **202007**

Azure Event Hub, Azure Data Lake Storage, Azure SQL, and Kubernetes (K8s) features have been added in Temenos Data Engineering (TDE) product to support cloud native service.

Design Framework

Temenos Workbench V2 (Quantum/Cloud) » Creating API Version and API Enquiry

Available from: **202102**

Temenos workbench allows you to create new API Enquiry and API Version by providing the basic information such as application name, product name, API name, API version, operation name, input validation and so on. On successful creation, they are launched in editor (edit mode).

Temenos Workbench » Defining Selection Fields

Available from: **202103**

While creating an enquiry or API enquiry, banks can now define the type of selection fields as:

- **Display** – Used for displaying enquiry execution output
- **Input** – Used for user input alone
- **Both** – Used as input before enquiry execution and for displaying query results as well.



Temenos Workbench » Keycloak Authentication



Available from: **202103**

In addition to the existing authentication mechanism in Fabric, a new authentication service called Keycloak is now available in Temenos Workbench. Keycloak provides single sign-on authentication to the application. You can switch between the existing basic authentication service (Fabric) and Keycloak authentication service.

Temenos Workbench V1 (UXP) » DSF System Variables



Available from: **202103**

For the users who don't have system variables (`EB.SYSTEM.VARIABLES`), this feature now allows them to set environment specific variables that are running based on Temenos Transact instance. The values for these system properties are retrieved from the `DATES` application with the record for the appropriate company.

User can modify the date format at system and field level. It is useful if users have a system property and can be customized as required.

Temenos Workbench » Inheritance Capability of API Version and API Enquiry



Available from: **202104**

API with Version and API with Enquiry editors are now enhanced to ease the inheritance capability and the new functionality is given below:

- This feature avoids the duplicate work and handling of duplicate artefacts.
- This feature helps in defining an inheritance and extension of core artefacts at country level.



- APIs now point to the merged version or enquiry that does not exist physically but are available at run-time.
- During API invocation, version or enquiry is merged accordingly and executed for a response that ensures country flavors are available.
- IRIS workbench returns with merged Transact artefact for the API developer.

Temenos Workbench V1 (UXP) » Design Framework (DSF) Packager Repository

Available from: **202104**

DSF package repository is now independent of Temenos Transact to extend its support for any kind of product extension.

It acts as a repository for all the package definitions and an audit capability with the status of package deployments. It supports high volume of package definitions with immediate response for inputting and querying.



Integration Framework

Integration Designer » Configuring flows without using Event Designer

Available from: **202006**

This feature allows users to modify the editable attributes of Integration Flow without using the Event Designer. Users can modify the editable parameters of the flows using a Temenos Transact application (`IF.FLOW.OVERRIDE`) or Command line utilities.

Data Event Streaming » Redelivery of Error Events

Available from: **202006**

This feature enables redelivery of error events both manually and automatically.

Data Event Streaming » Low Latency

Available from: **202006**

This feature provides end-to-end configuration for data event table generation, data processing, event transformation and assembling the event using appropriate assembly definitions with optimised schemas.

Click [here](#) to understand the installation and configuration updates for this enhancement.



Data Event Streaming » Handling Avro Data Types based on Temenos Transact Data Types



Available from: **202007**

The strict data type method converts all the Avro field data types to specific Temenos Transact field data types. Thus, an end user can directly infer each field with its own data type instead of plain text.

Interfaces » SWIFT Interface



Available from: **202008**

This feature provides users with a standard L1 interface (generic SWIFT Alliance Interface) to process any SWIFT message.

Integration Framework Designer » Creating Banking Framework Events



Available from: **202008**

In Event Designer, users can now define integration events for Banking Framework. This feature enables collection of data from multiple related applications.

Inflow » Posting Restful HTTP API Messages to Inflow



Available from: **202009**

Users can now send inflow requests using a Restful HTTP API (<http://<host:port>/inflow/api/v1/process>).



Data Event Streaming » Data Event Streaming API Security

Available from: **202010**

The Data Event Streaming API Security feature ensures sub component level health check such as kafka, schema registry, database, DES components (like EP, EPA and so on.), and valid user authentication.

ESB Adapter for IBM Integration Bus » Encryption of Credentials in IIB Outbound Adapter

Available from: **202010**

This feature provides a list of cryptographic algorithms using which users can encrypt the plain text password and then use this encrypted password in Integration Framework (IF) products.

Click [here](#) to understand the installation and configuration updates for this enhancement.

Data Quality Feedback Mechanism » Data Quality Feedback Mechanism

Available from: **202010**

The Data Quality Feedback Mechanism is introduced in Temenos Transact, which provides features to consume, convert and store the error records in Temenos Transact.



Integration Framework Designer » Conditional Event Generation for Banking Framework Events

Available from: **202012**

The Conditional Event Generation (CEG) feature has been added to Banking Framework events. This means in event designer it is now possible to define filters for the events to be generated for Banking Framework events.

Integration Framework Designer » Enabling or Disabling Flows

Available from: **202012**

Event Framework generates business events for all the flows defined for an exit point. The only way to stop event generation is to delete the flow and update the relevant exit point from Transact. To avoid deleting the flow, a new feature has been introduced, which helps to disable the flow and thus prevents unnecessary events being generated in Event Framework. This feature is a configurable option in the `IF.FLOW.OVERRIDE` table.

Using this feature, a user can:

- Stop triggering events for a flow instead of deleting the flow.
- Enable and disable flows.

Data Event Streaming » TAP Integration

Available from: **202101**

In Data Event Streaming, the following functionalities are introduced and thus facilitating TAP to use DES as a common event delivery solution.

Supporting Additional Column

DES can be configured to stream additional column for any other product, if required.



Configuring Schema Handler

By default, DES supports schema handling for Transact system which includes Relational Replication (RR) and IF schemas. To support additional schema handling, DES can be configured to inject the schema handler.

ESB Adapter for IBM Integration Bus » Enabling SSL Connectivity in IIB Adapter

Available from: **202101**

SSL in IIB provides a secure connection over Transport Layer Security (TLS) for MQ (through TCP enabled channel) and JMS. SSL certificates validate this connection, which is configured at broker level.

This functionality provides a way to accept SSL properties as input at IIB outbound design time to make connection to secured queue and enables the SSL connectivity for both types of connectivity (JMS and MQ).

For MQCONNECT mode, the SSL has been implemented through MQ Channel and applicable only for CLIENT mode. The following properties has been added for MQCONNECT:

- sslCipherSuite
- sslPeerName (optional)

Data Event Streaming » Archive Staging Table

Available from: **202102**

To overcome the size issue in DB, the Staging Table archival strategy is available. This strategy is used to archive the `TMN_DES_EVENT` staging table based on retention days specified by you. An API is also available to perform the archival process. In addition to event cleanup's functionality, it can archive a record by marking it as 'ready for deletion' based on the EOT message received.



Integration Framework Runtime (IF) » Redirect Processed Events to a Separate Table

Available from: **202102**

The post-delivery action of integration service now allows the `IF.EVENTS.INTERFACE.TABLE` records to move to a separate file. This feature helps the clients, who use data lifecycle module, to keep the `IF.EVENTS.INTERFACE.TABLE` lighter, where the processed records are marked to be purged by data lifecycle service and not deleted or moved to archive file by integration service. Later, clients can run the purge service to move the processed integration event records to read-only database.

Integration Framework Runtime (ID) » Enriching Integration Events with Temenos Subroutine or API Results

Available from: **202102**

Externalised APIs supports with any number of parameters and internal APIs with one input and one output parameter. This restricts you to send multiple parameters to the API and to get a structured output.

To get a structured output, the `IF.COMPLEX.TYPE` table is now available to handle complex type structure for the fields in the case of internal APIs and allows structured output. Also, it allows Integration Events enriched with values returned from a Temenos Transact subroutine (API) call.

Endpoint Connect

Available from: **202102**

Endpoint Connect is a Framework to Consume Integration Messages and call external API's from Enterprise Service Bus (ESB).

It provides an option to consume the input request using a camel-JMS endpoint



and sent to processor through camel-processor. The response from the processor is sent as a request through camel-http (client provides the HTTP URL) and the HTTP response is sent to camel-Transformer available at the client end. The final response from the transformer is sent to JMS output queue. It is a standalone component, which acts as an endpoint to send and receive messages.

ESB Adapter - IBM Integration Bus (II) » Enabling TimeToLive Property for MQCONNECT and JMSCONNECT

Available from: **202103**

TimeToLive (TTL) property is a new connection property to specify expiry time, so that, messages get discarded after the specified timeout. It is now allowed as an input at IIB outbound design time. This property can be enabled for both (JMS and MQ) types of connectivity. The expired messages cannot be consumed and are discarded in case of MQCONNECT and sent to expiry queue in case of JMSCONNECT (if expiry queue is specified).

Data Event Streaming » Adopting DES CloudEvents Schema

Available from: **202103**

DES delivers all the events to topic in Avro format.

This feature allows DES to deliver events as CloudEvents as well to public stream topics. CloudEvent is a standard event format for Cloud related technologies. Customers can get the CloudEvents to make use of common structure across different cloud providers.



Integration Framework Runtime (IF) » Initial Load Service Improvements

Available from: **202104**

Initial Load service is now extended to perform initial load at Version Level, for specific event types and can redirect initial load events to a different table, so that online events does not get disturbed.

Integration Framework Designer (ED) » Defining and Using Outward Landing Table

Available from: **202104**

The `IF.OUTWARD.DESIGN.LANDING` table is now available to hold the exit points and flow definition. This table can be editable after the first publish from event designer and it acts as a source for integration flow publish when the designer is made available in workbench.

Integration Framework Designer (ED) » Defining and Using Inward Landing Table

Available from: **202104**

The `IF.INWARD.DESIGN.LANDING` table is now available to hold the inflow design. This table can be editable after the first publish from inflow designer and it acts as a source for inflow publish when the designer is made available in workbench.



Interaction Framework

IRIS R18 » Pre Cache in IRIS R18

Available from: **202005**

In IRIS R18, a utility service is introduced to load all the service metadata and put it into cache before processing any Temenos Transact API request. This utility service performs the following functions:

- Scans all services and retrieves a list of underlying Temenos Transact artefacts.
- Makes a metadata request to Temenos Transact and cache it for later usage for Temenos Transact API request.
- Improves the performance of IRIS R18 services when invoked as the first service.

Click [here](#) to understand the installation and configuration updates for this enhancement.

UXP Browser » Enquiry Header Layout

Available from: **202005**

A new enquiry header layout is introduced where header field column numbers determine the ordering and their relative position within a row by comparing the column number of all enquiry fields. The layout of enquiries is improved for local print with proper column numbers and the headers can be defined at the middle or end of a row without any preceding header fields in the same row.

IRIS R18 » Generating Swagger Documentation using Vocabulary

Available from: **202006**

This feature allows IRIS R18 to generate swagger documentation with the



appropriate field labels from the `vocabulary-retail.json`, instead of ODS field names.

UXP Browser » Multiple Authentication in Generate on Demand Mode

Available from: **202006**

UXP browser is now enhanced to support multiple authentication by providing an alternate URL. Banks can configure their own authentication setting and UXP browser uses a clone of the same WAR and different root context, which works on Temenos Transact authentication setting.

IRIS R18 » Company Agnostic API Support in IRIS R18

Available from: **202007**

IRIS R18 can now use the header parameter 'companyId' from the transact request to fetch the corresponding metadata from the respective company.

Click [here](#) to understand the installation and configuration updates for this enhancement.

IRIS R18 » Health Check Service in IRIS R18

Available from: **202008**

A new infra service is introduced to test the configured Queues and Temenos Transact connectivity status (or health).Users can now fetch queue health, current Hostname, and Temenos Transact health using this service.



UXP Browser » Connecting Resource Server to Databases Automatically

Available from: **202008**

UXP Browser is now enhanced to connect to the resource servers all databases such as MSSQL, ORACLE, PostgreSQL, NUODB including h2 (both Temenos Transact and Resource Server).

IRIS R18 » Default XACML Authorisation

Available from: **202009**

This feature allows users to control the authorisation for every API and restricts anonymous user requests. In order to use the feature effectively, users need to ensure that they define relevant policy file to control the authorisation for every API. This will help to improve the security level of the product.

IRIS R18 » ADS Workbench

Available from: **202009**

The ADS (Analytics Data Store) workbench in IRIS R18 allows users to fetch the ADS metadata from Atlas and create APIs based on the metadata. This functionality uses the ADS endpoints to load the applications and fields in the workbench. The workbench also supports rules and joins.

UXP Browser » Borderless Enquiry Results

Available from: **202009**

UXP Browser is now enhanced to hide the border lines in the enquiry results. This feature is achieved by configuring the *borderlessEnquiries* field in the `DESKTOP-COMPATIBLE-ENQ-LAYOUT-SETTINGS.properties` file. This feature helps users migrating from Desktop and legacy browser to UXPB. Also, it helps to display plain enquiry results.



IRIS R18 » Multiple API Support in ODS

Workbench

Available from: **202010**

This feature allows the users to create multiple APIs in ODS workbench.

IRIS R18 » Default XACML Authorisation

Available from: **202010**

This feature allows users to control the authorization for every API and restricts anonymous user requests.

UXP Browser » Version Dropdown Enquiry

Available from: **202010**

In UXP Browser, users can now pass additional selection criteria while executing a dropdown enquiry in a Version. Additionally, users can further filter the dropdown results based on a text entered in the dropdown input field.

IRIS R18 » Performance Flag for IRIS API

Development

Available from: **202011**

This feature introduces a new timeout property `apiTimeOut` in the IRIS properties file. This timeout property allows you to know the time taken by Temenos Transact to give the response and the time taken by IRIS to parse the OFS response.

When the time exceeds the configured time, timeout exception is logged in IRIS logs. However, the API sends the response without any change.



UXP Browser » Custom Version Button Injection Framework

Available from: **202011**

This feature provides lightweight, client-side (JavaScript or jQuery) framework allowing banks to declare custom buttons for automatic injection into targeted Version screens. This feature does not require defining anything new in Temenos Transact or modifying any models, etc.

IRIS R18 » Automatic Generation of Publisher APIs in IRIS

Available from: **202012**

The new feature in IRIS automates the generation of Publisher APIs. It also provides the solution to generate the Swagger and `service.xml` during design time by uploading an existing Swagger.

This new feature directly maps the Provider URL that is obtained by the user in the `service.xml` for each endpoint along with the selection mapping. Users can download both Swagger and `service.xml` as a zip file from Workbench.

UXP Browser » Enabling Third Party Integration

Available from: **202101**

UXP Browser provides a framework to integrate itself with any external system and offers the functionalities **Print Preview** and **Upload Document** for integration. UXP Browser is flexible to integrate any external system that needs the above functionalities.



IRIS R18 » API Versioning Capability

Available from: **202101**

This feature generates two generic service XMLs during Provider API creation, where the generic service XMLs internally point to the latest specific Provider API.

To facilitate this feature to the existing Provider APIs, a utility service is created, which generates the two generic service XMLs for the specific service XML.

UXP Browser » Custom Enquiry Drilldown

Injection

Available from: **202102**

This feature provides lightweight, client-side (JavaScript or jQuery) framework allowing banks to declare custom buttons for automatic injection into targeted Enquiry screens. This feature does not require defining anything new in Temenos Transact or modifying any models, and so on.

IRIS R18 » Single Queue Model

Available from: **202102**

This feature reduces multi-queue dependency and enables IRIS R18 to send all requests and receive responses through single request/response queue. This feature maintains backward compatibility and is completely configurable. To support this feature and distinguish between multi-queue and single-queue requests, the `multiQueueRequest` property is introduced in the `standalone-comms.properties` and `jms.properties` files.

IRIS R18 » IRIS R18 Timeout

Available from: **202104**

IRIS R18 now supports API timeout based on the SLA mapped against



`operationId` with a timeout value in milliseconds in Config Microservice during the development phase. This loads all the values from the Config Microservice and places them in the cache before invoking the Transact API request.

Based on the domain and `operationId`, IRIS gets the SLA configured for the API from the Config Microservice.

IRIS also determines the `system.environment` variable from the Config Microservice:

- For non-production `system.environment`, IRIS times out the API response with 408 error code and it is logged with an error message.
- For production `system.environment`, IRIS logs the warning message and wait for the actual response from Temenos Transact.

IRIS R18 » Swagger Links Specification

Available from: **202104**

In IRIS R18 to know the API used to fetch the list of records for an API field that are check file table-based fields, you can refer the *Hyperlink* field, which is introduced in Transact Version Definitions. Based on the Transact Version Definition, the API link to the list is generated in Swagger specification with the new attribute `x-link` in the swagger field properties.

IRIS R18 » IRIS Rules Engine

Available from: **202104**

IRIS now supports payload validation against the configured rules engine. During API design, IRIS invokes the rules that are written and deployed in Rules Engine. It then validates the payload and displays all the rules deployed in the rules engine, which allows user to:

- Select one or more rules to be executed against the current API
- Map the field for each rule from the request payload

If there are any rules mapped against the currently executing API, IRIS checks the API and invokes the rule engine during runtime. Rules Engine returns a True



Boolean value, if all the rule executions pass and it returns False value, even if anyone rule fails.

- IRIS returns the control to the client with an HTTP Error code 422 unprocessable entity, when the rule fails.
- IRIS sends the payload to Transact to continue the business operation, when all the rules are validated successfully.

IRIS R18 » Installing and Configuring New Quantum Based IRIS Workbench

Available from: **202104**

In IRIS R18, a new workbench is designed using Kony Visualiser and Fabric platform, which supports all the features available in AngularJS workbench. IRIS endpoints can now be used to load the Transact artefacts in workbench. Once the artefact is added, workbench can be used to create inventory and send the request to IRIS that generates Swagger and service xml.

This feature allows to:

- Download the zip file generated.
- Create Published Microservice APIs and view the Vocabulary.
- View the services deployed in a selected server.

Click [here](#) to understand the installation and configuration updates for this enhancement.



Platform Framework

Design Studio » Temenos Workbench

Available from: **202007**

Temenos workbench is a web-based interface that allows users to configure Temenos products. It replaces Design Studio with a web based interface that include web based configuration tooling and packaging capability.

Temenos Workbench V1 (UXP) » Code Packager

Available from: **202008**

In DSF Packager, users can now compile and package jBC and Java codes along with Data records. Users can create a project specific to jBC and Java, compile it and create a JAR out of it, which can later be used for Transact operations.

TAFJ » Message Integrity Crypto API

Available from: **202008**

The ICryptoSPI interface has been introduced in the Message Integrity module. This allows Message Integrity to sign and verify a message using custom security APIs.

Infrastructure » Multipart Data Support

Available from: **202008**

The API end points of Microservice Framework now supports to upload and download the files through multipart content type. You can upload binary content along with the payload json and download it using download API.



Infrastructure » PAP UI Integration

Available from: **202008**

Based on the entity and API json files available under the model project, it is now possible to generate the metadata. Alongside, the system generates a resource file, which comprised of the consolidated list of Entity and API metadata files.

Temenos Workbench V1 (UXP) » Wildcard and Content Assist Support

Available from: **202010**

The Data Packager feature now supports wildcards and content assist when adding a record to a package through web interface or IDE import menu. The wildcard (*) can either be used separately or combined with characters as required, to import records in bulk mode.

Infrastructure » Scheduler

Available from: **202010**

Scheduler is a framework feature that comes bundled with Temenos Micro Services Framework (MSF). It enables the underlying microservice applications to schedule the business processes for execution at regular intervals using CRON expressions. It also provides support for monitoring of scheduler instances.

Temenos Workbench V1 (UXP) » Packaging Data Structures

Available from: **202010**

In Data Packager, the data structure feature has been enhanced such that users can now load maximum possible dependencies for a given model. Also, the



users can filter and load only L3 records into the package.

Infrastructure » NuoDB Support in Microservices Framework

Available from: **202010**

NuoDB which is part of Microservices Framework is an elastic SQL database for hybrid cloud applications that scales-out on-demand and ensures continuous availability of services. It provides standard database interfaces, operations, and guarantees consistency and durability.

Microservices » Entitlements

Available from: **202010**

Entitlements are sets of privileges configured for users which define the type of operations an application user can perform on the resources.

TAFJ Database Installations » TAFJ Stored Functions

Available from: **202010**

TAFJ provides stored functions, which are loaded in the database and used while performing DB Operations on I-Type fields whose values are aggregated based on a condition or from other columns in the table. These stored functions require a JVM or CLR (in case of SQL Server).

TAFJ Utilities » TAFJ Create Index Tool

Available from: **202011**

In TAFJ DBTools, a new tool is introduced to create, list, delete index on a table, and create promoted column. This tool helps to avoid manual steps and thereby removes human errors.



Temenos Workbench V1 (UXP) » Multiple Package Deployment

Available from: **202011**

This feature provides a deployment mechanism that can be automated and covers complex scenarios with circular dependencies between packages. The remote deployment mechanism deploys a set of Temenos packages grouped as a zip file. The deployment is done through an API that can take a zip of Temenos packages and deploy the packages simultaneously.

The feature also provides a retry option, if the deployment fails for any reason.

Temenos Workbench V2 (Quantum/Cloud) » Temenos Workbench UX Improvements

Available from: **202011**

In Temenos workbench, the existing features are improved by changing icons, popups, and by adding new enquiry wizard. Also, users can now add Transact models through the “Add package” functionality to improve user experience and maintain standard UI protocols.

Adapter Microservice

Available from: **202012**

To keep business microservice independently scalable, Adapter Microservice has been introduced. It provides a scalable interface to meet the integration-related requirements. It also provides the flexibility to deploy API specific transformation and routing configurations for interface.



Temenos Workbench V1 (UXP) » Packager License Check

Available from: **202101**

While deploying a record, if the company is not specified to it, then users can deploy that record to all the companies that have licensed application.

Temenos Workbench » Version Wizard

Available from: **202101**

In Temenos Workbench, the Version wizard has been enhanced such that users can now create Versions using the following four stages:

- Core Definition
- Field Selection
- Field Details
- Version Associations

Infrastructure » API and Event Schema Vocabulary Validation

Available from: **202101**

Temenos now provides a standard centralised vocabulary, which provides consistent naming conventions in the REST APIs developed across the products in Temenos. It is a guiding standard to define attribute names used under request and response schemas. The resource and domain names are used while designing REST API interface for Microservices Business Functions. The business and command events will also be validated.



Treasury

SWAPS » LIBOR Replacement in SWAPS

Available from: **202008**

The `SWAP` application that captures and processes (L)IBOR-linked transactions is enhanced to calculate the interest rate in arrears, based on the RFR and interest rate spread.

Click [here](#) to understand the technical impact of this enhancement for customisation and upgrades.

Money Market » LIBOR Replacement in Money Market

Available from: **202009**

The `MONEY . MARKET` application that captures and processes (L)IBOR-linked transactions is enhanced to calculate the interest rate in arrears, based on the RFR and interest rate spread.

Click [here](#) to understand the technical impact of this enhancement for customisation and upgrades.

Foreign Exchange » Spot Definition for Currency Pairs

Available from: **202009**

The FX module is enhanced to allow banks to define spot day convention for currency pairs, and also capture and process the FX transaction based on it.



OTC Clearing » EMIR Regulatory Requirement



Available from:**202010**

The OTC derivatives operational workflow of Temenos Transact is enhanced as follows to support the regulatory and clearing requirements of EMIR:

- New data fields in the OTC derivative applications (Foreign Exchange, Non-Deliverable Forward, Forward Rate Agreements, Swaps and Derivatives)
- Additional data fields for trade reports in OTC clearing module

This enables the bank to capture EMIR reportable data when inputting new transactions.

OTC Clearing » MiFID II Transaction Reporting

Available from:**202010**

The Over the Counter (OTC) derivatives operational workflow in Temenos Transact is enhanced as follows to support the transaction reporting requirements of MiFID II:

- New data fields in OTC derivative applications (Foreign Exchange, Non-Deliverable Forward, Forward Rate Agreements, Swaps and Derivatives)
- Additional information fields in OTC Clearing module

This helps the bank to capture and store MiFID II related reportable data for transaction reporting purposes.

Forex » Utilisation of FX Contracts

Available from:**202012**

The FX module is enhanced to:

- Capture FX deals without settlement instructions for Transaction Processing Application (TPA) to utilise these FX contracts. The settlement



happens in TPA, which enables to generate accounting entries.

- Support automatic utilisation of FX contracts by other TPAs (such as Loans, Payments, and Trade Finance) in Temenos Transact.
- Update FX contract balance on real-time basis

This benefits the user to utilise the FX contract from other departments without any manual intervention.

Click [here](#) to understand the technical impact of this enhancement for customisation and upgrades.

Forex » Trade Dated Accounting for FX Spots

Available from:**202101**

The Foreign Exchange (FX) module is enhanced to facilitate Trade Dated General Ledger (TDGL) accounting for FX spot contracts. Banks have the flexibility to opt for cash accounting (trade-dated general ledger accounting) or contractual accounting (value-dated accounting). When opted for cash accounting, the transactions are treated as non-contingent and positions are updated as Asset and Liability (AL) and undergo AL revaluation.

Click [here](#) to understand the technical impact of this enhancement for customisation and upgrades.

Money Market » Negative Interest Rate

Capitalisation in Money Market

Available from:**202103**

In Money Market (MM) application, interest rate capitalisation was applicable only for positive interest rates. The `MM.MONEY.MARKET` application is enhanced to support capitalisation of negative interest rates on MM Taking or Placement deal. This feature benefits the bank to capitalise interest on negative rates.



Foreign Exchange/Money Market » Rate Tolerance Calculation for Adjusted Rates

Available from: **202104**

The FX and MM rate tolerance calculation methodology has been enhanced to support a new method where an adjusted rate is checked for raising overrides during deal capture.

Installation and Configuration Notes



| Analytics

Semantic Query Layer » Data Enrichment in Semantic Query Layer

Available from: **202102**

To enable the enrichment rules for Semantic Query Layer module, the following configurations are required.

Application Properties

Cache mechanism type must be set for the framework as

```
sql.config.cache.type=EHCACHE in /SEMANTICQUERYLAYER-  
X.X.X.ZIP/CONFIG/APPLICATION.PROPERTIES.
```

Configuration Properties

Below configuration properties must be available in

```
/SEMANTICQUERYLAYER-  
X.X.X.ZIP/CONFIG/ENV/PROD/CONFIG.PROPERTIES:
```

- If Metadata source is set to ATLAS, then the below properties should be configured as follows:
 - Meta=data source type property

```
sql.config.metadata.source=ATLAS
```
 - TemenosMetaService server details host address, username and password

```
sql.config.atlas.host=<hostaddress>  
sql.config.atlas.username=<username>  
sql.config.atlas.password=<password>
```
- If Metadata source is set to LOCAL, then the below properties should be configured as follows:
 - Metadata source type property

```
sql.config.metadata.source=LOCAL
```



- Metadata inventory files default location path
`sql.config.metadata.location=../inventory`

Inventory Mapping

The inventory mapping properties are mainly required for LOCAL mode of metadata source usage in Semantic framework. The mapping should be defined between the API operation name and API inventory file name. The mapping provided for pre-released APIs is shown below:

```
getAllReportTimes_v100@Api=getServiceDetails-v1.0.0-inventory
getAllReportTimesCOB_v100@Api=getServiceDetails-v1.0.0-inventory
getProductLineActivities_v100@Api=getProductDetails-v1.0.0-inventory
getProductLines_v100@Api=getProductDetails-v1.0.0-inventory
getLanguageList_v100@Api=getLanguageList-v1.0.0-inventory
getSectorList_v100@Api=getSectorList-v1.0.0-inventory
getRateTexts_v100@Api=getRateTexts-v1.0.0-inventory
```

When any new API is created, mapping should be specified between API operation name and API inventory filename in `/SEMANTICQUERYLAYER-X.X.X.ZIP/CONFIG/INVENTORY-MAPPING.PROPERTIES` property file.

Source Mapping

The source mapping property is required to specify the mapping between Temenos Transact source application names and ODS table name. The mapping provided for pre-releases APIs is shown below:

```
app.map.AA_ACTIVITY_CLASS=AA.ACTIVITY.CLASS
app.map.AA_ACTIVITY_CLASS_ACTION=AA.ACTIVITY.CLASS
app.map.AA_ACTIVITY_CLASS_ACTIVITY_TYPE=AA.ACTIVITY.CLASS
app.map.AA_ACTIVITY_CLASS_ALERT_EVENT_TYPE=AA.ACTIVITY.CLASS
app.map.AA_ACTIVITY_CLASS_ATTRIBUTE=AA.ACTIVITY.CLASS
app.map.AA_ACTIVITY_CLASS_BATCH_NAME=AA.ACTIVITY.CLASS
```

When a new API is created, mapping for the tables involved in the API should be defined in `/SEMANTICQUERYLAYER-X.X.X.ZIP/CONFIG/SRC-MAPPING.PROPERTIES` property file.

Reconciliation » Business Reconciliation in TDE

Available from: **202104**

To enable business reconciliation in TDE, you should perform the following configurations in data flow.



Dynamic Schema Update

As user perspective schema gets changed, to make it dynamic, you should replace the schema name that is configured in ODS system configuration.

When you click **Run** for designer job, the schema replacement happens and the schema issue is resolved.

NOTE: You cannot validate and save the ODS SQL Read component (you can only save).

Write HDFS Configuration

In designer flow, the following flows are introduced to Write HDFS:

- Write HDFS for reconcile data
- Write HDFS for non-reconcile data

By default, Write HDFS components are configured. You should configure the components and path to write the records.

Data Flow Deployment in TDE

Designer flow is automated to fetch the schema and tables from target ODS database. You should configure the path to save the result reports (Write HDFS components).

During the init stage, job flow is inserted into jobs table with job name as `ECB_CAL_Reconciliation_tns`. The data flow is deployed as transformation job under the ODS-Job-001 project.

The screenshot shows the 'Edit SDS System Configuration' dialog box with the following configuration:

- Project Name: SDS-Job-001
- Checkpoint Directory: Azure Data Lake Gen2 (highlighted with a red box)
- Target SDS DB: Postgresql
- Product Version: 1
- Restrict Table Name Length: (empty)
- Store intra day changes:
- Enable Snapshot by Default on all tables:
- Snapshot Retention (Days): 0
- Stop Snapshot on schema change: (empty)



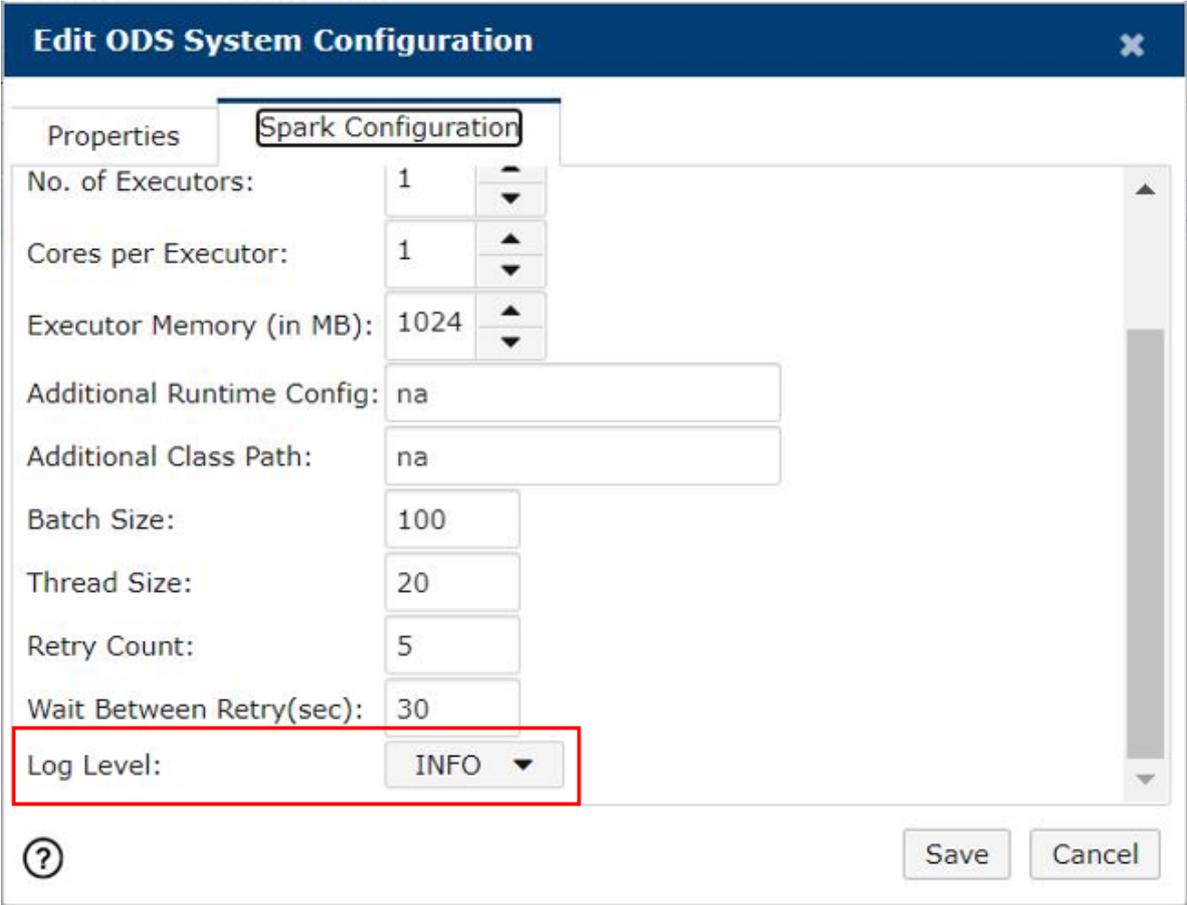
Metadata Management and Transact Data Hub » Column Lineage and ADL GEN2 upgrade in TDE

Available from: **202104**

To enable column lineage in TDE, you should perform the following configurations.

Logger Configuration

The configuration for ODS and SDS system in Admin is shown in the following screenshot.

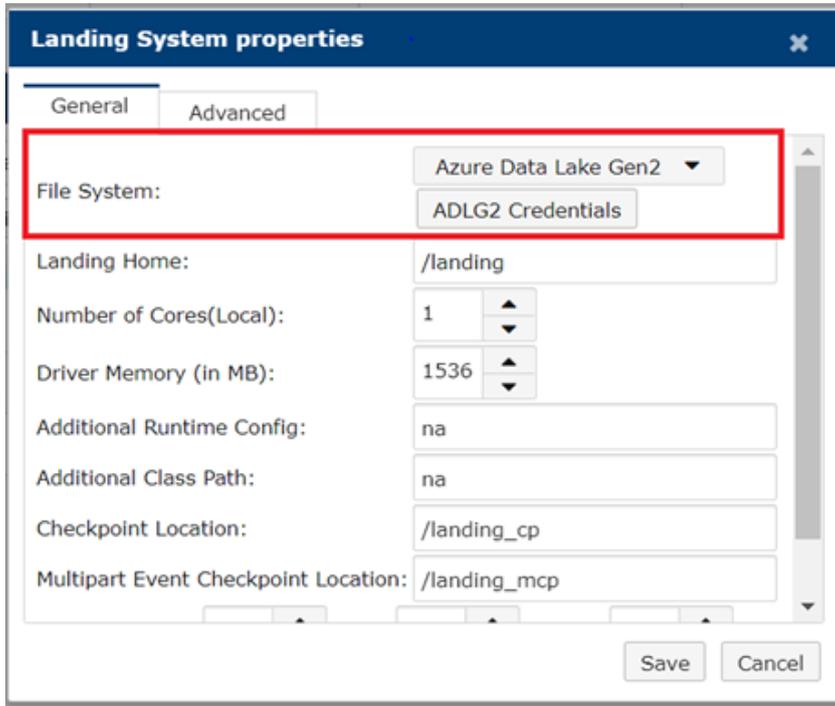


ADL Gen 2 Configuration Properties

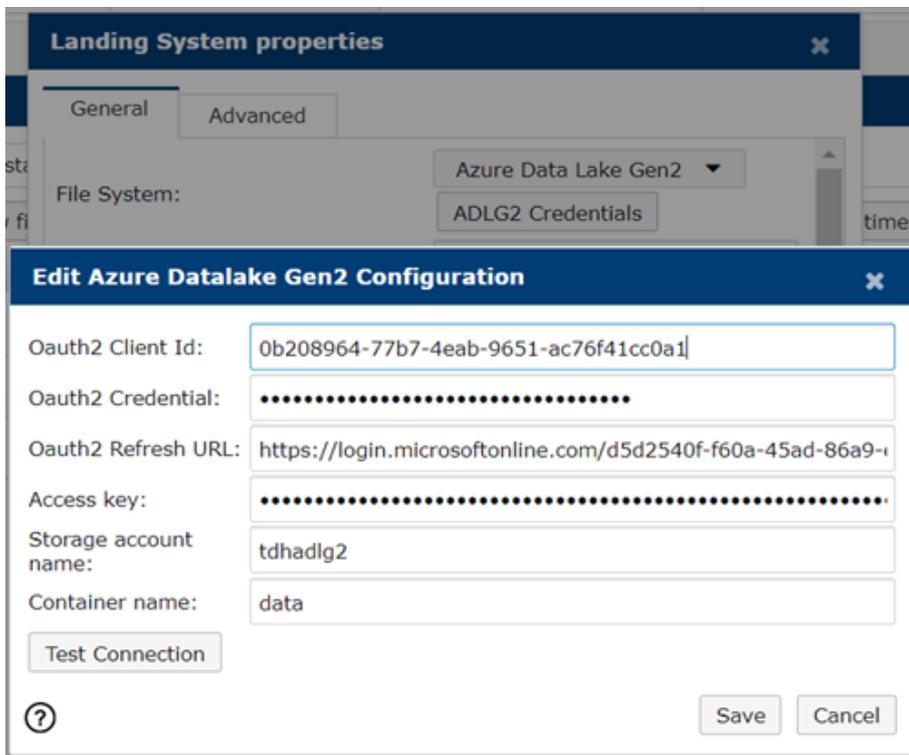
To configure the configuration properties, perform the following steps:



1. Configure the Landing System Properties is shown in the following screenshot.



2. Click **ADLG2 Credentials**. The Edit Azure Datalake Gen2 Configuration window is displayed as shown below.





3. Update the following fields in this screen as explained below.

Field	Description
<i>Oauth2 Client Id</i>	Azure Data lake Gen 2 Client Id
<i>Oauth2 Credential</i>	Azure Data lake Gen 2 Password or Secret
<i>Oauth2 Refresh URL</i>	Refresh URL for Azure Data lake Gen 2
<i>Access Key</i>	Access key for Azure storage containers
<i>Storage account name</i>	Storage account name to that you want to access
<i>Container name</i>	Container name inside storage account that you entered

The ODS Configuration screen is shown below.

Edit ODS System Configuration

Properties | Spark Configuration

Project Name: ODS

Checkpoint Directory: Azure Data Lake Gen2

/ods

Target ODS DB: MySQL Configure DB Properties

Restrict Table Name Length:

Product Version: 1

Stop Data flow on schema change:

Enable Data Quality Check:

Feedback on Exception:

Include all tables from source by default:

? Save Cancel

The SDS Configuration screen is shown below.



Edit SDS System Configuration [X]

Properties | Spark Configuration | Change Notification

Project Name: ...

Checkpoint Directory:

Target SDS DB:

Product Version:

Restrict Table Name Length:

Store intra day changes:

Enable Snapshot by Default on all tables:

Snapshot Retention (Days): [▲] [▼]

Stop Snapshot on schema change:

[?]



| Application Framework

Infrastructure » Customer Data Access Logging

Available from: **202103**

After installing and configuring enquiry and transaction logs, `PROTOCOL` will be written along with `CUSTOMER`'s additional information.



| Banking Framework

Delivery » Universal Confirmations – SWIFT 2020

Available from:**202006**

The license code for the module SFCNF is installed in the Temenos Transact system.

Accounts » Account Switching Service

Available from:**202006**

The license code for the module ACSWIT is installed in the Temenos Transact system.

Collateral » Exchange Rate in CO.ASSET.DETAILS Table

Available from:**202008**

The CX module must be installed in Temenos Transact.

Loan Loss Provisioning » Collateral Mitigation and Provisioning Changes

Available from:**202008**

The PV module must be installed in the system.



System Tables » Generating Accrual and Amortisation Entries through Soft Accounting

Available from:**202102**

The following records are released to support the soft accounting call from the `EB.ACCRUAL` application for AA Arrangement contracts.

- `AC.EVENT`
 - `CHARGE-ACCRUAL-ADJ`
 - `CHARGE-ACCRUAL-AMORTISE`
 - `CHARGE-PL-REVESE.TO.SUS`
 - `CHARGE-ACCRUAL-RESUME`
 - `CHARGE-ACCRUAL-REVERSE`
 - `CHARGE-ACCRUAL-SUS-REVERSE`

- `AC.POSTING.DETAIL`
 - `CATEG-ACCR`
 - `SPEC-ACCR`
 - `STMT-ACCR`

- `AC.ALLOCATIN.RULE`
 - `CHARGE-ACCRUAL`

Delivery » Support MX Messages through SWIFT Interact Services

Available from:**202104**

The bank must setup their own Distinguish Names (Requestor DN) which will be used to determine the Responder DN that must be sent in the SWIFT Interact technical header. Preferably, this should be set at the `DE.CARRIER` level, for those carriers which are using the Formatting Module XMLISO.

Alternatively, if the Requestor DN varies based on the address, message type, this can be setup in the `DE.DISTINGUISH.NAME.RULES` application, specify in the Domain the field the Delivery Carrier, and in selecting Requestor for the



Scope field.



Corporate

Arrangement Architecture (AA) » Non-Customer facing Interest

Available from: **202104**

To enable auto settlement of non-customer type of Interest or Charges, a new set of fields namely *Non Cust.Settle Categ* and *Pc Non Cust Settle Categ* are introduced in the Accounting product condition to define the settlement category from which auto settlement has to happen. During the settlement, the system posts the opposite entries to the Interest/Fees to the internal account/PL depending upon the category defined in these fields.



Technology

Data Framework

Semantic Query Layer » Security Authorisation for Semantic Query Layer

Available from: **202005**

In order to enable the security authorisation for the Semantic Query Layer module,

- **Security flag in the SemanticQueryLayer-XXXXXX.X.X.zip/config/PROD/config.properties file should be enabled by default as mentioned below:**

```
sql.security.enabled=Y
```
- **Default policy files and their respective pdp configurations should be present in the following:**
 - `SemanticQueryLayer-XXXXXX.X.X.zip/xacml/ext-pdp-config.xml`
 - `SemanticQueryLayer-XXXXXX.X.X.zip/xacml/root-policy.xml`
 - **Role based xacml policy files (*.xml) in SemanticQueryLayer-XXXXXX.X.X.zip/xacml/**
- **Path of the pdp configuration file should be passed as a variable argument in the start.bat/start.sh launch script as mentioned below:**

```
-DPDP_CONFIG=../xacml/ext-pdp-config.xml
```
- **If a new policy file is created and applied for a role, respective XACML policy file should be created through PAP-UI and placed in an appropriate location as mentioned below:**



- The below XACML policy file path is added in `ext-pdp-config.xml`.

```
SemanticQueryLayer-  
XXXXXX.X.X.zip/xacml/<policyLocation>../xacm  
l/xxxxx.xml</policyLocation>
```

- The below `policySetId` is included in `root-policy.xml`.

```
SemanticQueryLayer-  
XXXXXX.X.X.zip/xacml/<PolicySetIdReference>X  
XXXX</PolicySetIdReference>
```

- The `roleId` should be passed as a parameter in API headers with the role name.
- To create the policies in PAP-UI, SQL resources should be copied into `papRuntime` folder as mentioned below:
 - Copy SQL resources from below `pap-ui.war` folder,
`\papui.war\WEB-INF\classes\sql\`.
 - Copy resources, attributes and roles folders into
`\Temenos\jboss\papRuntime`.



Integration Framework

Data Event Streaming » Low Latency

Available from:**202006**

The user need to use the `temn.des.data.repo.direct-db.access = true` configuration property to run Data Event Streaming (DES) in DB mode.

ESB Adapter for IBM Integration Bus » Encryption of Credentials in IIB Outbound Adapter

Available from:**202010**

IIB Outbound Design time should be changed, which means the security credential column in the TAFJ runtime should contain the encrypted text instead of plain text.



Interaction Framework

IRIS R18 » Pre Cache in IRIS R18

Available from:**202005**

Configure the cache size in `<ehcache:offheap>` in the `ehcache.xml` file based on your needs.

IRIS R18 » Company Agnostic API Support in IRIS R18

Available from:**202007**

Default company for all APIs can be defined in the **Settings** tab present in the IRIS workbench.

IRIS R18 » Installing and Configuring New Quantum Based IRIS Workbench

Available from:**202104**

You must import the IRIS Workbench application, to use it in Quantum platform.



Platform Framework

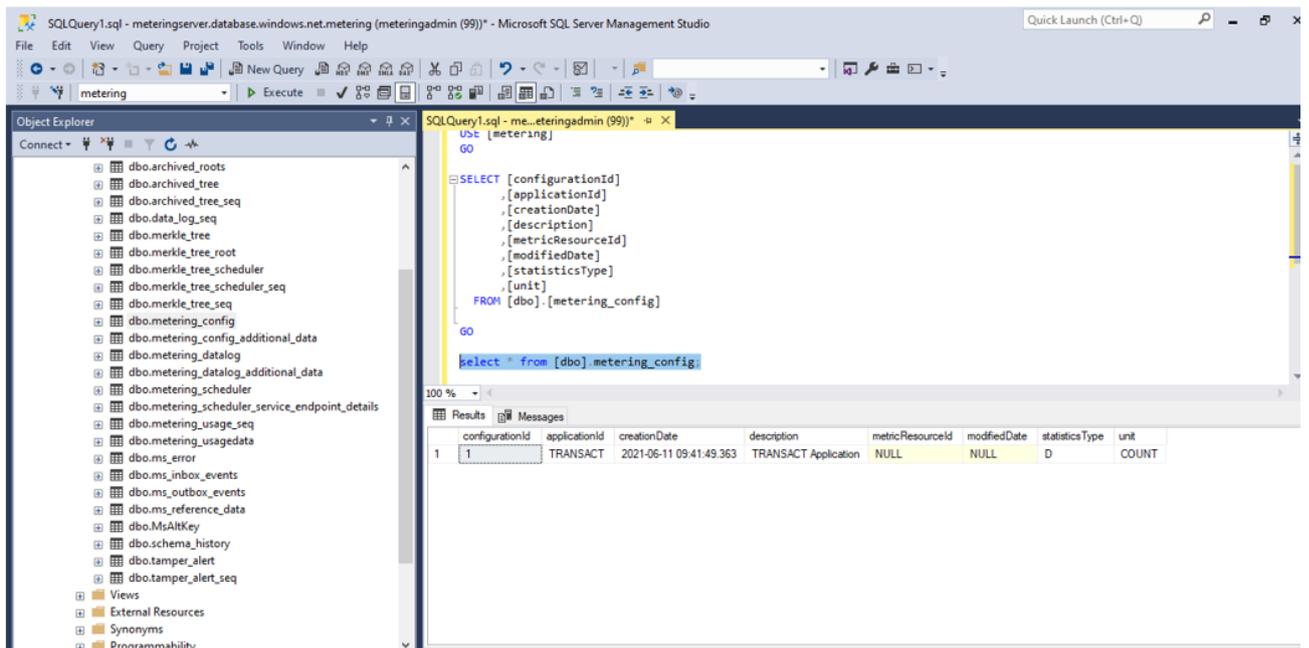
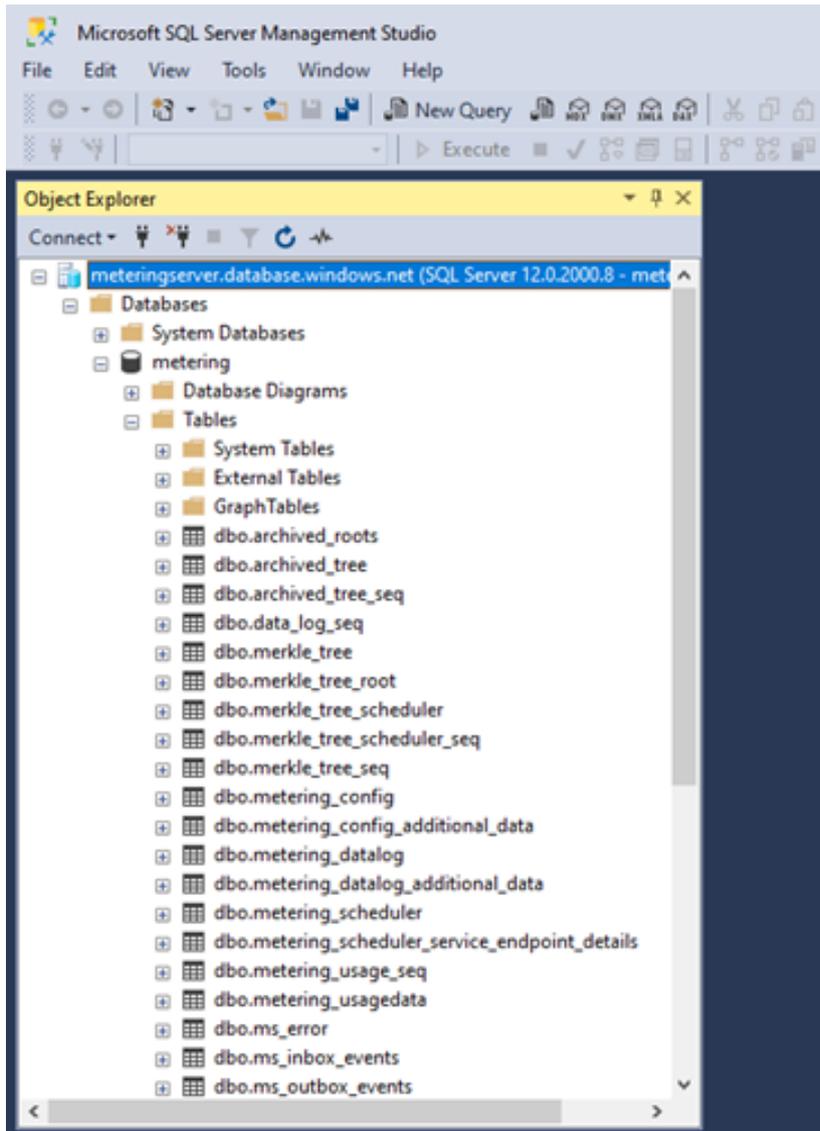
Microservices Framework » MS SQL Support

Available from:**202104**

SSMS 18.9.1 is the latest general availability (GA) version. If you have a previous GA version of SSMS 18 installed, installing SSMS 18.9.1 upgrades it to 18.9.1.

- Release number: 18.9.1
- Build number: 15.0.18384.0
- Release date: April 20, 2021

The following are the sample screen captures of MS SQL database with metering service.



| Technical Notes



| Analytics

Transact Data Hub » Spark Optimisation, Metrics Collection and Operational Monitoring

Available from: **202012**

Ensure you import designed JSON files in Grafana to integrate and display the metrics information in dashboard.



| Application Framework

Infrastructure » Customer Data Access Logging

Available from: **202103**

There are no changes in local development. However, to record additional information, you need to use,

- *Protocol Info API* for local customisation
- *Customer* to provide the list of additional fields, which provide CUSTOMER information



| Banking Framework

Accounts/General Ledger » Internal Funding Position (IFP) Memo Balance

Available from:**202006**

Credit check details for a dual credit check setup will have two sets of data recorded in the *Credit Chk Dtls Name* and *Credit Chk Dtls Value* fields of the record in the `STMT.ENTRY` application for each credit check, with the first set being the least of the two credit check balances. Any local development using the data recorded in these fields needs to be revisited.

System Tables/Delivery » Structured Address based on ISO 20022 Payments Standards

Available from:**202008**

The following routines have been enhanced to return the newly added address fields:

- `getCustPostalAddressEnrich`
- `getNameAddress`
- `getPhysicalAddress`
- `de.get.formatted.address`



New Modules for Legacy Payment Processing using Funds Transfer and Generic Accounting Interface

Available from:**202009**

Two new technical licensing modules Legacy Payment Processing using Funds Transfer (FTFULL) and Generic Accounting Interface (ACCCSM) are split from Funds Transfer (FT). During upgrade from lower release, if FT is already present, FTFULL and ACCCSM will get installed automatically. For new installations, FTFULL and ACCCSM will be available on top of FT module. The below functionality is enabled.

- FT – This module allows creation of `FT.TXN.TYPE.CONDITION` records of type and underlying payments can be initiated only for ACXX types.
- FTFULL – This module is required to create `FT.TXN.TYPE.CONDITION` of any type other than ACXX. All payment initiation applications have `FT.TXN.TYPE.CONDITION` as CHECKFILE, and if no record is present, transaction initiation will be blocked.
- ACCCSM – This module is required to configure `AC.ENTRY.PARAM` and post Generic Accounting Request strings.

New Module - Balance Files

Available from:**202010**

A new module, Balance Files (BF), has been carved out of Reporting (RE).

- The `EB.CONTRACT.BALANCES` and `EB.CONTRACT.BALANCES.HIS` tables have been moved from the RE to BF module.
- This module will be automatically installed during the upgrade process and requires no manual intervention.
- Any local developments referring to the `EB.CONTRACT.BALANCES`



and `EB.CONTRACT.BALANCES.HIS` tables in componentised format should be modified to refer BF accordingly.

Uploading IBAN Exclusion Files

Available from:**202011**

When uploading IBAN exclusion files, the `IN.EXCLUSION.LIST.UPLOAD.SERVICE` has to be executed after authorising the `IN.EXCLUSION.LIST.LOAD` table. The `OFS.MESSAGE.SERVICE` need not be executed separately as it will be part of the new batch `IN.EXCLUSION.LIST.UPLOAD.SERVICE`.

New Module – Bulk Payment Initiation

Available from:**202012**

A new module, Bulk Payment Initiation (BU), has been split from the Funds Transfer (FT) module. `FT.BULK.MASTER` and `FT.BULK.UPDATE.TYPE` applications have been moved from FT to BU module.

- This module will be automatically installed during the upgrade process and requires no manual intervention.
- Any local developments referring to the `FT.BULK.MASTER` and `FT.BULK.UPDATE.TYPE` tables in componentised format should be modified to refer the BU component.

New Module – Payments Beneficiary

Available from:**202101**

A new module Payments Beneficiary (BY) has been split from the System Tables(ST) module. `BENEFICIARY` and `BENEFICIARY.LINKS` applications have been moved from ST to BY module.

- This module will be automatically installed during the upgrade process and requires no manual intervention.



- Any local developments referring to the `BENEFICIARY` and `BENEFICIARY.LINK` tables in componentised format should be modified to refer the `BY` component.

Structured Address Fields

Available from: **202103**

The entire set of fields from `OT.ID.TYPE` to `SCH.ISSUR` for `ULTIMATE.CRED` and `BENEFICIARY` have been associated with multivalued fields in the `BENEFICIARY` application:

- A validation has been added to check that the values are entered only in the first multivalued set for the `DOB`, `BR.PRVC`, `BR.CITY` and `BR.COUNTRY` fields.
- Only the first multivalued set has been mapped from `BENEFICIARY` to `STANDING.ORDER`.
- The existing APIs have been modified to include the newly added address fields.

Funds Transfer » Legacy Payment Processing

Available from: **202104**

Temenos customers upgrading from a release before 202009 already having the FT license code, automatically receive the FTFULL license code. Henceforth, Temenos standard payment solution is the Temenos Payments suite and FTFULL will not be offered to new customers. The existing payment types are supported for backward compatibility only, this module will not be enhanced to provide any new payment methods and standards (for example, ISO200022) above the capability available in R21.



Corporate

Corporate Lending

Available from: **202104**

Corporate Lending suite offers various corporate functionality with the following technical aspects:

- The Deal and Facility products share the same product line. They are differentiated by setting the *Group Level* field as Deal or Facility.
- A new table called `AA.PARTICIPANT.ARRANGEMENT` has been released to update the participant related information such as the participant and the arrangement to which it belongs. If any static change happens either in the customer record or an account record, the static change is applied to the participants based on the `AA.PARTICIPANT.ARRANGEMENT` table through the `AA.PROCESS.ACTIVITIES` service.
- For a future dated sub-limits definition, the restriction limit creation and drawing utilization update is performed by the `LI.REBUILD.RESTRICTION.LIMITS` auto service.
- The process of splitting/merging/rolling over of the loans is performed by `AA.SPLITS.MERGES.SERVICE` auto service. This service is introduced to purge the source loan(s) and create target loan(s).
- During the process of splitting/merging/rolling over, the arrangement conditions for the newly created Target arrangements can be customized by creating appropriate *Record RTN* in the Activity API condition.

Arrangement Architecture (AA) » Non-Customer Facing Interest

Available from: **202104**

The *Internal Booking Account* attribute introduced for non-customer charges is



obsoleted with the *Non Cust.Settle Categ* and *Pc Non Cust Settle Categ* fields since it was incapable of handling currency specific settlement accounts.

Arrangement Architecture (AA) » Defining Default Settlement Instructions

Available from:**202104**

The Settlement Property Class is enabled for Inheritance. When the *Inheritance Link* field is set as Tracking in Target arrangement, any changes to the default settlement instructions at the source arrangement level are inherited to the target arrangements through `AA . ARR . TRACKER . SERVICE`. This service can be run as an online service or can be run during COB.



| Retail

Retail Lending » Automatic Disbursement of Top up Loans

Available from: **202006**

When the *Commitment Drawdown* field is set to Auto, it is not required to define the disbursement details in the payment schedule as the system creates the disbursement bill automatically. The system always uses the payment type as S.AUTO.DISBURSEMENT and bill type as DISBURSEMENT for that bill.

Arrangement Architecture » Configuring Non-Customer Facing/Internal Charges (NCFC)

Available from: **202006**

To amortise non-customer/internal charges new events are released. To view a complete list of AC.EVENT records click [here](#).

Arrangement Architecture » Splitting Negative and Positive Interest Rates

Available from: **202006**

To provide separate transaction codes and to identify a different description per STMT.ENTRY, new AC.EVENT records are released. To view a complete list of AC.EVENT records click [here](#).

Arrangement Architecture » Generating IBAN



Available from:**202008**

As Bundles is a non-financial product line, which do not have an associated account, the BBAN ID or account number should be generated and returned by the local routine that is attached in *Alt Acct Gen Api* field of the `ALT.ACCT.PARAMETER` table based on which the IBAN gets generated.

Arrangement Architecture » Repayment Calculator

Available from:**202008**

The Repayment Calculator enquiry is released in Temenos Transact that facilitates the calculation of the required values.

Arrangement Architecture (AA) and Retail Lending » Income Recognition Using Cost-Recovery Method

Available from:**202104**

To enable income recognition using the cost recovery method new events are released. To view a complete list of AC.EVENT records click [here](#).



| Technology

Data Framework

Semantic Query Layer » Security Authorisation for Semantic Query Layer

Available from: **202005**

Semantic Query Layer resources, attributes and default roles should be loaded in PAP-UI to create the policies. IRIS PAP services should have an SQL product to load the resources in PAP-UI.



Treasury

Swaps » LIBOR Replacement in Swaps

Available from: **202008**

When back patched clients are upgrading to the current release, the SW.CONV.RFR.ALL.SWAP service has to be executed once to map the values from the local reference fields to core Risk-Free Rate (RFR) fields.

Money Market » LIBOR Replacement in Money Market

Available from: **202009**

When back patched clients are upgrading to the current release, the MM.CONV.RFR.MONEY.MARKET service has to be executed once to map the values from the local reference fields to core Risk-Free Rate (RFR) fields.

Forex » Utilisation of FX Contracts

Available from: **202012**

A new Close of Business (COB) service (FX.EXT.SETTLE.REPORT) is available to generate a report to list the FX transactions, which have a residual balance on the value date. Hence, it can be settled in the suspense account defined in the *Residual Amt Settl* field of FX . PARAMETERS.

Forex » Trade Dated Accounting for FX Spots

Available from: **202101**

The TXN.ENTRY.FX enquiry is built in the RE . CONSOL . SPEC . ENTRY table.



Indexing OUR.REFERENCE and TRANS.REFERENCE columns in the table helps in improving the performance.

| Extensibility APIs



Java Extensibility

Category: ■ New ■ Enhanced ■ Existing ■ Deprecated

Package	Class	Method name	Description	Hook* /API
system	RecordLifecycle	isDataAccessRestricted	Returns a boolean value to decide whether to restrict or allow access to the data.	Hook
system	DataFormattingEngine	updateRecord	Updates the records of a table.	Hook
system	ServiceLifecycle	updateLoanDepositRecordWithSchedule	Updates only LD . LOANS . AND . DEPOSITS and LD . SCHEDULE . DEFINE records during the service using the specified version and id.	Hook
system	RecordLifecycle	postUpdateRequest	Enabled for Delete function at unauthorised phase of lifecycle.	Hook
payments	PaymentLifecycle	getExternalRequestFieldValue	Gets a field value to be mapped to an external request.	Hook
payments	PaymentLifecycle	updateProduct	Overrides the product related information including the routing product.	Hook
system	Delivery	getFieldValues	Enables the implementer to map the incoming tag value to field values for the given	Hook



Package	Class	Method name	Description	Hook* /API
			applicationName	
system	Delivery	mapTagValuesToRecord	Returns a record whose values are mapped from the incoming message using the tag value mapping defined in DE . MESSAGE.	API
system	Delivery	validateBic	Validates a Business Identifier Code (BIC) returning a ValidationResponse containing the result.	API
system	Delivery	validateCustomerBic	Validates a customer Business Identifier Code (BIC) returning a ValidationResponse containing the result.	API
system	Delivery	validateCompanyBic	Validates a company Business Identifier Code (BIC) returning a ValidationResponse containing the result.	API
accounting	AccountingEntry	setAlternateAccountId	Missing to include the accountId as parameter. Use AccountingEntry.getAlternateAccountId instead.	Hook
accounting	Report	getAssetLiabilityReportLines	Returns the report lines for the given consolidation Id and asset type.	API
accounting	Report	getProfitLossReportLines	Returns the report lines for the given consolidation Id and currency.	API



Package	Class	Method name	Description	Hook* /API
system	Session	getSessionNumber	Returns the current session number.	API
system	Session	getSourceId	Returns the id of the current OFS source record.	API
payments	PaymentLifecycle	postUpdateRequest	Defines a request to update core records to be posted asynchronously.	Hook
payments	PaymentLifecycle	postRequestToExternalSystem	Decides whether to post a request to an external system using the returned boolean value.	Hook
payments	PaymentLifecycle	updateRequestToExternalCoreSystem	Deprecated since most of the parameters are made as INOUT from IN and codes are not as per naming convention mentioned in the L3 governance guidelines. Use <code>PaymentLifecycle.postRequestToExternalSystem</code> instead.	Hook
system	Session	publishMessage	Transforms the record, publishes it as per the configuration and returns the published message.	API
system	Session	printLine	Prints the message to the Temenos Transact standard output, prepending the process name, job name, session, date and time details.	API
system	DataAccess	getFieldValue	Returns the entire value of a Temenos Transact field given the application name, field name and	API



Package	Class	Method name	Description	Hook* /API
			record.	
retail	ContractApi	getNextPayment	Fetches the next payment date and next payment amount of an arrangement.	API
system	Session	setNextVersion	Enables the developer to define a VERSION that will be launched on successful commit of the current transaction. (Enables EB.SET.NEXT.TASK for VERSION)	API
system	RecordLifecycle	enableAutomaticAuthorisation	Enables the developer to write code to identify whether transactions can be authorised automatically. (Enables the EB.STP.CONDITION functionality)	Hook
payments	PaymentLifecycle	updateProduct	Helptext change to accommodate heavy weight product updation as well.	Hook
payments	PaymentLifecycle	updateProduct	Helptext change to accommodate heavy weight product updation as well.	Hook
payments	PaymentLifecycle	getChargeResponse	Gets a charge response for the transaction, which can either be the calculated charge amount or a boolean value indicating that the system default calculation is to be used.	Hook
payments	FeeDeterminationHo	getChargeAmount	Deprecated. Use PaymentLifecycle.	Hook



Package	Class	Method name	Description	Hook* /API
	ok		getChargeResponse instead.	
system	DataAccess	setFieldValue	Returns the record updated with the value of the given field name replaced with the provided field value.	API
contract	Calculation	updatePrincipal	Enables the implementer to modify the list of principal each of which has an amount and date.	Hook
contract	Calculation	getAmortizationAmount	Enables the implementer to calculate and return the amortization amount for the given period.	Hook
hook.- countrymodelbank. fin- land	Collateral	getDepreciationAmount	Allows the implementer to customize the depreciation calculation methods in collateral.	Hook
countrymodelbank. saudi Arabia	IslamicLoan	calculatePartialEarlyPayment	Calculates the Charge Amount based on the number of early repayment installments for a Partial Early Settlement transaction.	API
countrymodelbank. regulatory	Tax	updateTaxRefund	Updates an existing goods and services tax record with the provided tax details	API
payments	PaymentLifecycle	getFileName	Enables the developer to get a file name for the outgoing payment message type.	Hook
system	Record	getGroupName	Returns a group name for the given record based on the conditions specified for the given table	API



Package	Class	Method name	Description	Hook* /API
			name.	
system	Enquiry	setDropdownFilterCriteria	Sets the selection criteria using the values of the current record from an input screen.	Hook
system	DataAccess	getCurrentDirectory	Returns the Temenos Transact current runtime directory path.	API
contract	ProvisionManagement	getSegmentationProvision	Enables the developer to get segmentation provision percentages to be used in provision calculation.	Hook
payments	PaymentLifecycle	getCreditAccount	This hook enables the implementer to return the account for the credit side of the current transaction.	Hook
payments	PaymentLifecycle	getDebitAccount	This hook enables the implementer to return the account for the debit side of the current transaction.	Hook
payments	PaymentLifecycle	validateCreditParty	This hook enables the implementer to validate the party on the credit side of the current transaction.	Hook
payments	PaymentLifecycle	validateDebitParty	This hook enables the implementer to validate the party on the debit side of the current transaction.	Hook
payments	PaymentLifecycle	getPaymentDate	This hook enables the implementer to return a PaymentDate object which impacts when the payment	Hook



Package	Class	Method name	Description	Hook* /API
			is processed.	
payments	PaymentLifecycle	updateProcessSequence	This hook enables the implementer to update the processing sequence and decide whether to include the codeword for special processing or not.	Hook
payments	PaymentLifecycle	skipMessage	This hook enables the developer to decide whether to skip the generation of the swift output message.	Hook
hook	ComponentApiHook	getCreditAccount	Deprecated. Use PaymentLifecycle.getCreditAccount instead	Hook
hook	ComponentApiHook	getDebitAccount	Deprecated. Use PaymentLifecycle.getCreditAccount instead	Hook
hook	ComponentApiHook	validateCreditParty	Deprecated. Use PaymentLifecycle.validateCreditParty instead	Hook
hook	ComponentApiHook	validateDebitParty	Deprecated. Use PaymentLifecycle.validateDebitParty instead	Hook
hook	ComponentApiHook	getCodewordFlag	Deprecated. Use PaymentLifecycle.updateProcessSequence instead	Hook
hook	ComponentApiHook	setCalculatedDate	Deprecated. Use PaymentLifecycle.getPaymentDate instead	Hook
payments	DataAccess	getPaymentRecord	Returns the payment record from the table of the	API



Package	Class	Method name	Description	Hook* /API
			company where the user is currently logged into	
payments	AccountingEntry	setAccountId	Enables the implementer to perform the check digit calculation and also updates modified accountId into the locking table.	Hook
system	ServiceLifecycle	getSwiftRequests	This interface enables the implementer to return a number of swift requests for processing by the system.	Hook
system	Session	Initialize	This interface enables the implementer to initialise a session by preloading cached data to improve the processing time of subsequent transactions on the session.	Hook
system	Session	loadRecord	This interface enables the implementer to initialise a session by preloading cached data related to the given table and record id to improve the processing time of subsequent transactions on the session.	Hook
system	Session	getCachedRecord	Returns a cached copy of the record from the live table of the company the user is currently logged into.	API
system	Session	getCachedLookupValues	Returns a cached copy of the lookup values for the given lookup key.	API



Package	Class	Method name	Description	Hook* /API
system	Session	clearLookupCache	Clears all lookup values from the cache.	API
system	Session	setNextVersion	Sets the next VERSION to be launched automatically at the conclusion of the current event. Field values in the next version can be set by providing values in the record structure parameter.	API
system	RecordLifecycle	updateLookupTable	Deprecated use system.RecordLifecycle.getLookupRecordAmendments instead.	Hook
system	RecordLifecycle	getLookupRecordAmendments	This interface enables the implementer to amend multiple lookup table records by adding and removing their related ids.	Hook

**Hooks are placeholders in Transact where routines can be attached to an application. For example, version, enquiry, delivery and so on.*