What's New in

Temenos Infinity

January 2021

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|Release Highlights

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. 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.

> **The topic related to this feature is given below:**
>
> Infinity Retail Banking

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. 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.

> **The topic related to this feature is given below:**
>
> Infinity SME Banking

Infinity Onboarding

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. 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.

> **The topic related to this feature is given below:**
>
> Infinity Onboarding

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. 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.

> **The topic related to this feature is given below:**

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 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.

> **The topic related to this feature is given below:**
>
> Infinity Corporate Origination

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.

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

The topic related to this feature is given below:

Infinity Components

Microservices

Service Request

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.

> **The topic related to this feature is given below:**
>
> Service Request Microservice

Arrangement

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.

> **The topic related to this feature is given below:**
>
> Arrangement Microservice

Holdings

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.

> **The topic related to this feature is given below:**
>
> Holdings Microservice

Document Storage

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.

> **The topic related to this feature is given below:**
>
> Document Storage Microservice

Marketing Catalog

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.

> **The topics related to this feature are given below:**
>
> Loan Simulator
>
> Marketing Catalog

Originations Data Storage

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).

> **The topic related to this feature is given below:**
>
> Originations Data Storage Microservice

Loan Origination

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.

> **The topic related to this feature is given below:**
>
> Loan Origination Microservice