What's New in

Temenos Infinity

April 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.

- **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.

> **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.

- **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 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).

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

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**
  - 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.

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

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. See Components documentation for more information.

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

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

Infinity 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. 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.

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

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:

- **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.

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

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.

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.

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

Microservices

Loan Origination Service (LOS)

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.

> **The topic related to this feature is given below:**
>
> Loan Origination Service (LOS)

Document Storage Microservice

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.

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

Entitlements Microservice

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.

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

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.

- **Direct Debits – Skip Next Payment**: In the banking application, 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 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.
  - SR MS persists the request and dispatches the request to the back-end system for processing only after Signatory Approvals are given.

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

Receipting Microservice

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.

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

Originations Data Storage Microservice

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.

The topic related to this feature is given below:

Originations Data Storage Microservice