

What's New in Temenos Digital

R24 AMR

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Digital Banking

Digital Banking Servicing Micro Apps

Micro Apps are applications with specific functionality which are fast and efficient than monolithic applications. While traditional monolithic apps contain a wide range of functionality including front-end and back-end operations, Micro Apps are simple, lightweight in nature with targeted functionality.

The following features have been introduced in Digital Banking Servicing Micro Apps:

Transfers Micro App

Available from: **202307**

- **Beneficiary Address Mapping**
 - The Beneficiary Address fields for Domestic and International Transfers are mapped to the Transact layer, which will, in turn, display the Address information of the Beneficiary when verified in the Audit Trail of Transact.

Available from: **R24AMR**

Unified Transfers Flow

- Domestic transfers (instant or non-instant) can be initiated in any currency, either with BIC or National Clearing code, and the payment system is/can be configured to route the payment to the appropriate clearing.
- International transfers support the emission of payment messages either in MT or MX format of SWIFT.

Confirmation of Payee

- Confirmation of Payee is validated during new payee creation and make transfer flow (Domestic) based on the configuration in Spotlight.
- Customers can re-validate the payee's confirmation during the payment initiation (make transfer flow) for an already verified payee.

The topic related to this feature is given below:

❖ [Digital Banking Servicing Micro Apps](#)

Arrangements / Home page Micro App

Available from: **202307**

- Redesigned compact dashboard developed to stabilize the performance issues on the dashboard front whenever the user is part of a high number of Customer IDs and Accounts.
- As per the new design compact dashboard:
 - Introduction of a customer ID dashboard prior to the Accounts listing dashboard, which is rendered basis of the count of accounts held by the user, which is made as a configurable one at the spotlight application (Bundle

configuration) level.

- Configuration for listing the page with a pagination option (Next page / Previous page) across the customer ID dashboard and Accounts dashboard basis the count of customer IDs / accounts.
- Disclaimer notification to the user on the customer ID dashboard whenever the user is upgraded from the normal to the compact dashboard and vice-versa from the compact dashboard to the normal dashboard.

Available from: **202309**

- Transaction listing in the accounts overview screen is enhanced in such a way to improve the performance of the channel application and to provide an enriched experience for the end users across Retail / SME / Corporate sectors.
- As part of this enhancement, following were covered:
 - Introduction of tabs- 'Pending' and 'Posted' in the overview instead of the existing tabs as 'All,' 'Transfers,' 'Deposits,' 'Checks,' and 'Withdrawals' so that the user will be able to view the completed transactions and pending transactions in a separate tab which is developed in an auto responsive layout.
 - Removal of transactions per page view option from the UI. The count of transactions per page is rendered basis of a new configuration introduced at the spotlight application level (System configuration - Bundle: DBP). This count is made configurable and can be changed in the spotlight application. This configured value will be applied across the landing page - Posted / Pending and the results for the Advance search performed by the user.
 - Introduction of new configurations for fetching the pending and posted transactions count separately from the back end (Transact). This count is configurable and can be changed in the spotlight application (System configuration - Bundle: DBP). Example: If the configured count for posted transactions is set as "20", then the API payload will be enhanced accordingly to fetch 20 transactions from Transact.
 - Advanced search functionality enhancement for Blocked funds transaction wherein the user would be able to do a search basis time as (last seven days, 14 days, 1, 2, 3, 6 and 12 months and custom time period) with Keyword, reference number search. The advanced search option is shown as a pop-up screen to the user as part of this enhancement.
 - The advanced search option will have defaulted with the values of a time period with "seven days" and Transaction type as "All transactions," there is a server-side search functionality enabled for the user performing an advanced search on the transactions page.
 - The description field in the Infinity UI is mapped to a concatenated text value of "Display Name" + "Narrative" from Transact. These changes were applied to the landing page tabs, Advance search results, as well as the transaction download file, which is performed by the end-user across the landing page, advance search download, and per transaction download file.
 - Removal of the Date selection option on the download transactions option performed by the user on the landing page and the transactions which were fetched from the back end in the specific tab will be downloaded and presented to the user based upon the format selection. Example: If the user clicks download from the 'Posted' tab on the landing page, the Posted transactions fetched from the back end as per the configured count will be part of the downloaded file.

Available from: **202310**

- Account transactions landing page for posted transactions tabs IRIS API payload enhancement is done so that the API fetches the recent transactions from Transact by passing the transaction count value alone without passing the 'Date from' parameter as an input. IRIS API is enhanced to fetch "Recent" transactions in an account.
- Statements generated by the user via the "Combined statements" tab are enhanced to a new layout (PDF format) for an enriched user experience.
- The mapping of interest-related fields between IRIS API and the Infinity UI enhancement is done based on the account type.
 - For savings account type - Interest-related information for fields (Credit Interest rate / Interest accrued / Last Paid Interest / Paid Interest YTD) are fetched from Interest property: "Credit interest" from the IRIS API response.
 - For checking account type - Interest-related information for fields (Credit Interest rate / Interest accrued / Last Paid Interest / Paid Interest YTD) are fetched from Interest property: "Debit interest" from the IRIS API response.

Available from: **202311**

Enhancement on Download of Ad hoc Statement

- Introduction of a new tab under the Statements feature "Ad hoc Statements" to download the transactions statement generated by the user from the Advance Search results; whenever the file generation time exceeds the configured time at the Fabric level, the user will be provided with disclaimer information as "We are preparing your statement. Once the statement is ready, you can download it from Ad hoc Statements Tab under Account Statements" with a hyperlink Click here. When the user clicks the hyperlink, the system will navigate the user to the Ad hoc statements tab. This tab is available to the user at the OLB responsive channel application and MB native application.
- The date fields shown on the Account Overview screen across the Account information/ Interest details/ Account summary tabs and the Transactions listing will be updated as "DD/MM/YYYY" from its existing format shown as MM/DD/YYYY. This enhancement is made as a configuration at the Fabric application. Based on this configuration, clients (Banks) can choose to maintain the date format as dd/mm/yyyy or mm/dd/yyyy.
- In the advanced search results, the search filter condition selected by the user will be shown to the user above the transaction results with an option to cancel the condition. In the current enhancement, two filters - By transaction type and By time have a default value. Whenever the user tries to delete these two filter conditions, the system will display a warning message as 'Mandatory fields cannot be cleared, use modify search to refine the search criteria' with an 'Ok' option for closing the dialog box.
- New configuration service 'searchTransactionsTimed' is developed in Fabric for 'x' milliseconds to handle the download transaction list generated as part of "Advance search." The statement file download completion takes more than the configured milliseconds; the download file will be persisted on the Ad hoc statement tab with a disclaimer message to the user to download the generated statement file from the Ad hoc statement (introduced as part of the Statements module).

Available from: **202312**

Mortgage Servicing - Early Repayment/Settlement Simulation Calculator - Transact Integration

- Mortgage Servicing - early repayment/settlement simulation calculator - Transact integration:
- A new mortgage servicing feature is developed for a mortgage facility associated with a single loan to facilitate the user with an option to simulate and arrive for a payoff amount on a specific selected date.

- Introduction of a new feature/action, "Simulate early payoff," at the mortgage facility overview account with one associated loan basis feature permissions enabled at the spotlight application.
- Users accessing the "Simulate early payoff" option will be presented with Terms and Conditions to be accepted to proceed with the simulation. The content in the Terms and Conditions presented to the user will be generated from the Application content management from the spotlight application.
- User's acceptance/rejection of the Terms and conditions for early payoff simulation will be stored in Consent Microservices.
- On accepting the Terms and Conditions, the user will be landed on the simulation screen with basic information such as Mortgage facility account number/ Loan account number/ Current maturity date & the current outstanding balance, along with an option to select the 'Payoff simulation date.'
- This 'Payoff simulation date' selection calendar will sync with the Transact calendar date. Users who select this date calendar will be allowed to choose only specific dates based on the configuration from the spotlight application. The "calendar date selection" key here is the maximum number of days from Today that a user can generate a mortgage settlement. The selectable date will be the 'x' date from Today's date. For example, if Today's date is 18-April-23, and the configuration is set as ten days, then the user can select from Today's date till 27-April-23. The date selection restriction information is presented to the user in the Information section on the simulation screen.
- The user selects a specific date and clicks the "Continue" option. A simulation payoff is generated in Transact via API integration, and the simulation results generated from Transact will be presented to the user in the simulation results screen.
- On the simulations screen, the user will be provided with the settlement figure below parameters based on the response from Transact IRIS API.
 - Payoff simulation date (Selected by the user)
 - Total Principal outstanding balance
 - Principal Interest
 - Tax
 - Early payoff fee
 - Other charges
 - Total outstanding amount payable (Addition of all the above field values)
- Over the simulation results screen, an information content widget is presented to the user to contact the bank to proceed with the mortgage payoff, and the contact information (Email ID/Phone number/Address of the bank) is provided.

Available from: **R24AMR**

- For Mobile Banking app, combined statement generation has been enhanced to accommodate the multi user changes for both Retail and SME, means when the end user selects the accounts associated to multiple customers while generating the statement then the generated statement contains all the customer details associated to the selected accounts.
- In the account summary, we are showing overdraft balance, overdraft limit fields only for current and savings account types, and the OD is attached to the account; if the OD is not attached and the available balance is negative, then we will show the overdraft balance as the available balance.

Embedded Origination in the Mobile Native App

- A new menu item is introduced for the Mobile Native application in the Hamburger menu post login - 'Open New account' for the user to navigate to the 3rd party origination application in the embedded view. This feature can be enabled/ disabled for the user by the bank user from the spotlight application based upon the Feature/action - 'New account opening - Open new account.'
- On clicking this feature, the user will be redirected to the relevant 3rd party origination application (The origination URL endpoint can be configured by the bank user in the Fabric app), where the user will have options to explore and open new products offered by the bank.
- This feature/action - 'New Account Opening,' will be applicable for Retail Banking and Wealth Banking service definitions.

The topic related to this feature is given below:

❖ [Digital Banking Servicing Micro Apps](#)

Digital Wealth

Available from: **202307**

- Infinity Wealth Fabric project refactoring and optimization.
- RTL Support (OLB only): PortfolioManagementMA.
- RTL Support (OLB only): WealthOrderMA.
- Security Fixes (Tech Debt).

Available from: **202310**

Include Orders

- Include Orders is the new feature that is developed.
- Integration is done in standalone services (Mock) and Wealth FO.
- Feature is present in OLB, MB, and Tablet.

Available from: **202312**

- Performance Metric Display in Customer and Portfolio Dashboard.
- Display Yield to Maturity field for Bonds In Instrument Assets.

Integration and Channels

- Integration is done in Standalone services (Mock) and Wealth FO.
- The feature is present in OLB, MB, and Tablet.

Available from: **202402**

- Multi-entity switch.
- Integration and Channels:
 - Integration is done in Transact and Wealth FO.
 - The feature is present in OLB, MB, and Tablet.

Available from: **R24AMR**

Multi-Customer Dashboard

Multi-Customer Dashboard feature will be introduced in the Portfolio Management MicroApp. This new feature is designed to enhance user experience by providing access to multiple customers through a single dashboard.

- **Unified Access:** Users can now seamlessly access two or more customers from a single interface after logging in. The new Dashboard screen will display a list of all accessible customers, streamlining navigation between portfolios.
- **Effortless Navigation:** Users can easily navigate between different customer details and portfolios without the need to log out and log back in.
- **Favorites:** Easily mark and filter customers by “Favorite” for quick access to the most frequently accessed customers.

The topic related to this feature is given below:

❖ [Digital Banking Servicing Micro Apps](#)

Login, Shared Micro App

Available from: **202307**

Implement the Solution for DST (Daylight Savings Time)

The Online Banking application should reflect the correct timezone based on the DST in all the places where the time is shown.

Setting Communications Micro App

Available from: **202307**

Alert Settings - View and Edit mode for the Enable / Disable Alerts Switch

In Alert settings, when any category is selected or when View / Modify is selected, a status icon will be shown if in the view mode and once the page is in edit mode the enable / disable switch will be shown.

Alert Settings - Display Account Number in the Account level Alerts View

For account level alerts when we click on View / Modify we show the selected account nickname and account number on the header.

Available from: **202308**

- In the Alert Settings screen, there is an edit option for the account category once we click on the Account number, which is now shown on top of the screen.

- Edit option at Account level Alert subscription:
 - For account-level alerts, the option to 'Edit' the alert subscriptions is now placed in the view alert subscription screen, which can be seen by clicking on the 'View' button for any specific account-level alert.

Available from: **202308**

- Multi-language - Language preferences under channel Apps
 - A user can save the preferred language in the profile section.
- Generation of Single Request in Approval Framework
 - Create a single request in the Approval and Request Dashboard, even though the user is part of a Multi-contract.

Available from: **R24AMR**

As part of the user experience improvement exercise, for users having access to a large number of accounts, the UI enhancement has been done to present the listing of a large number of accounts in a better format and improve the response time for UI loading.

The Alert setting module (Alert Settings > Account) has been enhanced to support users having access to more than one contract or a large number of accounts. For multiple contract access, the listing of accounts is based on per customer ID. In the case of large accounts, the listing is paginated for quicker loading. In this release, the enhancement applies only to the web responsive module and not to mobile native.

Account Sweeps Micro App

Available from: **R24AMR**

- Account sweep is now being enhanced to integrate with Transact application [AC.CASH.POOL].
- A new parameter is being introduced in the DBP bundle configuration in spotlight to define the Transact Sweep rules to be used in API mapping.
- Restriction removed to map account as a secondary account in different sweep instruction.

The topic related to this feature is given below:

❖ [Digital Banking Servicing Micro Apps](#)

Authentication Micro App

Available from: **R24**

Embedded Origination in the Mobile Native App

- Introduced a new landing page for the mobile native application for first-time users. Users can view this new landing page when downloading the Temenos Digital application on their mobile device for the first time. The page will contain options -

"Explore Products - Directs the user to explore products via the origination flow," "Resume application - Allows the user to resume any partially filled origination application," "Existing user Login - Lands the user to the default login page of the Temenos Digital application."

- The new landing page will be configurable based on the bank's requirements. If this configuration is enabled, the user can view the latest landing page options upon first login. If this configuration is disabled, then the user will be shown the existing sign-in page to the user by default.

The topic related to this feature is given below:

❖ [Digital Banking Servicing Micro Apps](#)

Approval Matrix Micro App

Available from: **R24AMR**

- Introduction of Approval Framework for Non-Monetary Actions.
- The Beneficiary Management Approval Framework will support Single Contract and Multi Contract Scenarios.
- The Beneficiary Management Approval Framework will support notifications in the Notification Centre, email, and SMS for creating, editing, or deleting a Beneficiary from the Initiator and Approver Perspective.
- The initiator can view his request (Create/Edit/Delete) in the Request Dashboard.
- The Approver can also Bulk Approve the Non-Monetary Actions (Create/Edit/Delete).

Approval Matrix functionality has been enabled for Retail customers

- Setting up of Approval Matrix.
- Display of Request and approval Dashboard for Retail customers in OLB.
- Transactions are to be executed based on rules defined in the Approval Matrix.
- To support both user-based and signatory-based approval.

Approval Matrix Functionality has been enabled for Beneficiary Management for the Same Bank, Domestic, and International Transfer flow

- Capture the Beneficiary Details in the Channel App.
- Request to be sent to Approvals and Request Dashboard.
- Non-Monetary Approval Matrix Feature Creation.
- Appropriate notification to be sent to the user logging into the Online Banking Application.
- Appropriate status needs to be shown in Manage Beneficiaries.

Approval Framework 2.0

- Framework 2.0 can work for all approvals but is the preferred method for actions across multiple customer IDs. Beneficiary management is the premier feature action for Framework 2.0.

Approval Request Micro App

Available from: **R24AMR**

Approvals and Requests now supports setting up of rules for non-monetary action - Beneficiary Management.

Creator can raise a request by:

- Adding a new Beneficiary.
- Editing an existing Beneficiary.
- Edit Recipient Linkage - Linking/Delinking a contract, in case of multi contract.
- Removing a Beneficiary.

Non-Monetary actions also support Bulk approvals.

The topic related to this feature is given below:

❖ Digital Banking Servicing Micro Apps

Trade Finance Micro App

Available from: **202312**

SCF - Supply Chain Finance

- Introduced the Supply chain finance dashboards for Anchor and Counterparty.
- The Anchor dashboard shows the widgets for Programmers and facilities, Funding Requests, and Invoices pending approval. It also shows the pie chart for Funding requests.
- Advanced Search functionality allows users to search results with all possible parameters to get quick updates on the requests.
- Submitting Create funding requests and Capturing funding request details.
- Configured Spotlight permissions are required for Supply Chain Finance.

Available from: **202401**

- SCF - Supply Chain Finance.
 - a. Approve Invoices
 - b. Invoice Bulk Upload
 - c. Payment allocations - Anchor and Counterparty
- Duplicate validation on invoices upload.

Available from: **202402**

SCF - Supply Chain Finance

Integrate SCF Channels with Transact to get all Programmes and Facilities of the Customer

SCF Channels Anchor Dashboard will show all existing Programmes and Facilities details of the Customer from core (Transact) using appropriate transact IRIS APIs and allow bank users to view the Available and Unutilized balances for each Programmes and Facilities under each Programme.

Integrate SCF Channels with Transact to POST all Manual and Bulk Invoices Captured from Channels to Transact

SCF Channels from Anchor and Counterparty Dashboard, when Customer uploads Invoices, all uploaded Invoices (manually uploaded or Bulk Upload) should be individually sent to the core (Transact) using appropriate transact IRIS APIs. All Invoices should be sent to Transact once submitted and with the status Approved (approved manually by Anchor or auto-approved by the system).

Integrate SCF Channels with Transact to GET Invoices from Transact

SCF Channels from Anchor Dashboard: When Customer initiates a funding request and reaches the invoices detail screen, based on the search criteria entered by Customer, core (Transact) should GET invoices using appropriate transact IRIS APIs. All Invoices should be sent to Transact once submitted and with the status Approved (approved manually by Anchor or auto-approved by the system).

Implemented SCF with Transact using the three existing IRIS APIs

1. CLOS to use GET all Programmes IRIS API </holdings/supplyChainFinance/programme> to retrieve Programme details from Transact.
2. CLOS to use GET all Facilities IRIS API </holdings/supplyChainFinance/Facilities> to retrieve Facilities belonging to Programme from Transact.
3. CLOS to use GET Invoice Capture IRIS API </holdings/supplyChainFinance/invoiceCapture > to retrieve Invoices details. Invoice Capture table in Transact.

Advanced filter functionality in “Payment Allocation”

Anchor Dashboard

Advanced filter functionality in the “Payment Allocation” tab allowing the Customer to filter the “Payment Allocation” Cash receipts records with parameters like Transaction ID, Date range - Value Date, Sender Name, and Beneficiary Name By default.

Counter Party Dashboard

Advanced filter functionality in the “Payment Allocation” tab allowing the Customer to filter the “Payment Allocation” Cash receipts records with parameters like Transaction ID, Date range - Value Date, Sender Name, Beneficiary Name By default.

Creation of APIS to communicate with DBXBD instead of SRMS based on the configuration set up in Fabric runtime properties.

Available from: **R24AMR**

- **Trade Finance Transact Integration**

Implemented below three API flows to integrate with Transact. Trade Finance backend data is stored and retrieved from Transact.

- CreateImportLC
- CreateOutwardCollection

- CreateGurantee

The topic related to this feature is given below:

❖ Digital Banking Servicing Micro Apps

Trade Lending Micro App

Available from: **R24AMR**

Introduced a Lending Dashboard in Digital Banking so that Corporate/Business customers can have a 360-degree view of Lending Products held with the Bank.

Lending Channel is a tool to access Deal/Facility/Drawing contracts details, and as a corporate, customers can view their existing contracts and balances. Corporate customers can also initiate drawdown requests and view balances, repayments, etc., from channels on this Corporate Lending Dashboard. At any given time, corporate customers should be able to view their Deal/Facility/Drawing contract details with the latest balances.

Introduced feature "Lending Dashboard" and action under 'Master Data Management' in Spotlight application; this feature is enabled only for the Corporate/Business Banking channel as this feature is applicable only for corporate/business customers. Enable these features and actions in the Corporate/Business Banking app through 'Service Definition configuration' and enable this service definition to customer roles "Maker" and "Authorizer."

Lending Dashboard

- Introduced Payment Initiation and Drawdown Request creations via quick links shown in the Lending Dashboard.

Payments Quick Link

- The customer can initiate/make payments towards pending Bills against his Facility/Loans. Customers can pay the amount either at the facility level or loan level.
- The customer can repay the full outstanding amount or a partial/specific amount towards his facility/loan amounts.

Drawdown Request Quick Link

- Customers can request a new loan against the existing facility.
- Customers can select a facility, capture the loan amount and loan tenor, add customers who should be part of the loan and the roles of each customer, capture pay-in and payout details, and submit the drawdown request.

Smart Banking Advisor Micro App

Available from: **202307**

The Smart Banking Advisor is a digital banking application for a bank's business banking customers. Initially built as a standalone Infinity application, formerly known as Virtual Chief Operating Officer (Virtual COO / VCOO), this project aims to integrate Smart Banking Advisor as a Micro App within Infinity Business Banking.

- User enrollment to Smart Banking Advisor.
- Connection establishment to accounting data.
- Cash flow chart dashboard display (with cash flow prediction, cash balance, etc).
- Business health score (with insights).
- Combined retail and business view details on the screen for a single business owner.

Available from: **202308**

- Toggling Cash flow and prediction, Simulation chart, and Cash flow chart based on Spotlight's features and permissions.

Available from: **202309**

- **Smart Banking Advisor - Tile** - The tile or icon of smart banking advisor with the enrollment call to action (CTA) will be available in the top right of the post login dashboard screen from where the user can navigate to complete the enrollment to smart banking advisor for the business.
- **Accounting Software Selection** - Accounting software selection for SBA business is done by the user based on which the accounting details for a selected business will be fetched.
- **Hamburger Menu - Smart Banking Advisor** - The Hamburger menu of smart banking advisor will display the list of features such as enrollment, cash flow prediction, etc.

Available from: **202311**

Cash Flow and Prediction

- The implementation of Cash flow and Prediction and simulation were done in different screens, now clubbed and implemented as a single screen of smart banking advisor.

Accounting Software Selection

- Multiple businesses under smart banking advisor: The accounting software data is loaded for users with multiple businesses after selecting the option from the My Company list.
- Single business under smart banking advisor: The list of accounting software is made visible for a single business user with a default value of My company.

Available from: **202312**

Functional

Payables Average Payment Days

Users can understand their payment behavior towards suppliers via the Average Payment Days screen view. A horizontal bar chart shows the top 5 suppliers by the average number of days they take to pay bills the business has received from their suppliers.

Spotlight Permission for SBA Users - Payables and Receivables

A user with a single/more than one business banking customer should be given entitlement for Smart Banking Accounting

Dashboards that the user is linked to, provided that the customer entitlement for those businesses has entitlement for Smart Banking Accounting Dashboards

In Spotlight, if feature payables and receivables are enabled, then the user can see the receivables and payable feature (Payables and Receivables should be two separate Spotlight Features, namely " Payables" and "Receivables. "

Enrolment Screens Users with Permission for AID

Enrollment screens of users with permission for AID with feasible scenarios are captured in this story, and below are the use case scenario

Scenario 1

The user with permission to access only "cash flow and prediction."

The user will only be able to have cash flow analysis, insights, cash flow simulator, and business health score based on the access provided.

Scenario 2

The user with permission to access "cash flow and prediction and AID."

The user will only be able to have cash flow and prediction, Accounts receivable, and accounts payables based on the access provided.

Scenario 3

The user with permission to access only "AID."

The user will only be able to have Accounts receivable & accounts payables based on the access provided.

Technical

Doughnut Chart Component

The donut chart Component, usable for Receivables and Payables Overdue, Upcoming By Customer, is covered as part of the development here.

Horizontal and Stacked Bar Component

The horizontal chart Component, which will be usable for Receivables and Payables Overdue, Upcoming, By Customer, By Supplier, and Average Payment Days, are covered here as part of the development.

Detailed Table Component

Detailed table Component, which will be usable for Receivables and Payables Overdue, Upcoming, By Customer, By Supplier, are covered here as part of the development.

Available from: **202401**

Payables Upcoming

- The count of upcoming amounts and bills will be on the screen for user reference
- Breakdown by days and amount gives the upcoming payments based on amount and days as a graphical representation
- Percentage breakdown of total upcoming payments shows the circular graph representation.
- The top five with upcoming payments again show the graph payable amount in a graph with the supplier's name.
- The count of bills for the top 5 suppliers is also made available on screen.

Payables Overdue

- This shows the overdone amount and count of overdue bills on top for user reference; it has the overdue details with a breakdown by days and amount in a graphical note and a percentage breakdown of overdue amounts in a percentage graph.
- The top five suppliers with the data on overdue payments are provided in a graph with the bill count respective to the business.
- The list of suppliers overdue will have the search by supplier name with the period filters as a table.

Payables by Supplier

- The count of the total payable amount and bill count will be on the screen for user reference.
- Breakdown by days and amount gives the upcoming payments based on amount and days as a graphical representation.
- The percentage breakdown of total payables is captured in a circular graphical representation.
- The top five customers by total payables show the amount payable with the graph of payables respective to the days.
- Users can search the suppliers' list for the overdue bill count, upcoming bill count, total payable, and upcoming amount for analysis.

Receivables by Customer

- The user must see a horizontal bar chart showing amounts to the total amount outstanding in buckets, overdue, and a pie chart of the percentage of overall amounts due in buckets, overdue, and due by the top five customers owing money to the business. It must be possible for the user to switch via a drop-down to view the same by the number of invoices instead of amounts.

Receivables Upcoming

- A user will wish to view the analysis of invoices in more detail to see what is expected to come into the businesses cash flow via a brief view of the receivables that are not yet overdue.
- In a separate panel, the customer will want to see which of their customers owe the most to the business in upcoming amounts via a horizontal bar chart view of the top five customers and the amounts owed. The customer must see which of their customers owe the most in each range by a drop-down filter by bucket range.

Receivables Overdue

- A user will wish to view an analysis of overdue invoices in more detail, and navigating to the Overdue screen must show a brief view of the receivables of the business that have not been paid.

- In a separate panel, the customer will want to see which of their customers owe the most to the business via a horizontal bar chart view of the top five customers and the amounts owed.

Microservice Dependency

- There is a removed Microservice dependency in SBA, and getting the details from DBXDB.

Automation Scripting

- Implemented automation scripting for SBA.

Oracle Scripting

- Added Oracle queries along with MySQL, MsSQL.

The topic related to this feature is given below:

❖ [Smart Banking Advisor Micro App](#)

Generic Changes for all the Infinity/Digital Apps

Available from: **202309**

- Enhancements in infinity-authtoken-manager to support auth token generation for all MSs and T24 APIs based on the enabled token mode Fabric/Keycloak by the fabric runtime.
- Introduced two new clients, msfauthcode and irfxauthcode at the Keycloak existing realm end to authenticate MS and T24 endpoints with Keycloak.
- All Infinity Apps will be using the “Infinity Auth Token Manager” maven module only to generate the authorization token.

Available from: **202401**

UI Rebranding

To ensure we keep up with the trends in the market and Next Gen UI, we renamed the Infinity as Temenos Digital.

The following rebranding activities were undertaken:

- 90% rebranding changes to be done through skins consisting of:
 - Rounded corner for Buttons, main containers, UI flexes, etc.
 - Background color changes (Native and Responsive).
 - Font size/type changes.
 - Font color changes.

- 10% of the changes are to modify important widgets (e.g., quick links in Dashboard and Account Detail).
- All the 'icons and images' will be modified to make them more modern. From the development point of view, it is a simple file replacement.
- There is a massive set of unused icons and images. Those will be removed carefully. It helps the implementation teams to rebrand the solution quickly.
- Another set of skins will be added to handle the Dark theme. This will be provided as a choice to the end user. This is applicable only for Native as part of Phase 1.

Products

1. Digital Banking- Responsive: All the above-mentioned changes are done on the following products:
 - Retail Banking
 - Business Banking
 - Smart Banking Advisor
 - Trade finance
 - Supply chain Management
 - Wealth Management
2. Digital Banking- Mobile Native: All the above-mentioned changes are done on the following products:
 - Retail Banking
 - Business Banking
 - Wealth Management
3. Origination- Responsive:
 - Retail Origination
 - SME Origination
 - Journey manager
4. Assist: Fundamental changes are done as part of this exercise (Logo/name changes through i18n).
5. Spotlight: Fundamental changes are done as part of this exercise (Logo/name changes through i18n).

About Mobile Native Dark Theme

Dark theme is a User-defined theme selection feature. As part of Phase 1, we provided just the Dark theme. This can be extended further by adding more themes. Users can go to the Settings menu and choose their theme.

Banks can utilize this feature to introduce the feature-wise color theme (Example: Retail, business, loan, etc.).

The following are the Exceptions for Phase 1:

- Tablet and Mobile breakpoints testing and bug fixes.
- Bug fixes for some of the products are not done.

- Quick links for the entire product are to be done in line with account details and dashboard changes.
- Chart background updates for the third party charts are also not taken up (Example: Wealth).
- Manual deletion of unused icons (around 50%).
- There are a few more low-priority icon updates.

Microservices as Optional

| | For non-enterprise deals (Lite weight non-MS flavor) | For non-enterprise deals (Performant flavor) | For Enterprise Services |
|----------------------------------|---|---|--|
| | Core Product UTP 1 | Core Product UTP 2 | Solution UTP (SaaS 2.0 and SaaS 2.1 runs) |
| Holdings Microservice | No | Yes | No |
| Marketing Catalogue Microservice | No | No | No |
| Consent Microservice | No | No | No |
| Service Request Microservice | No | No | No |
| Savings Pot Microservice | No | No | No |
| Aggregation Microservice | No | No | No |
| DBX DB | Yes | Yes | Yes |

| Features | Backends | Microservices | Default offering | Availability |
|-----------------------|-------------------|----------------------|------------------|------------------|
| Customer modules | T24, MS, MOCK | Party MS | Transact | 202401 and above |
| Accounts and Balances | T24, MS, MOCK | Holdings MS | Transact | 202401 and above |
| Products | DBXDB, MS | Marketing Catalog MS | DBXDB | 202401 and above |
| Cards | DBXDB, SRMS | Service Request MS | DBXDB | 202401 and above |
| Cheques | T24, STUB, SRMS | Service Request MS | Transact | 202401 and above |
| Profile Settings | T24, SRMS | Service Request MS | Transact | 202401 and above |
| Dispute Transactions | STUB, SRMS | Service Request MS | STUB | 202401 and above |
| Consent | DBXDB, Consent MS | Consent MS | DBXDB | 202401 and above |
| Payments | T24, SRMS, STUB | Service Request MS | Transact | 202401 and above |
| Account Closure | DBXDB, SRMS | Service Request MS | DBXDB | 202401 and above |

Available from: **R24AMR**

Microservices as Optional

| | For non-enterprise deals (Lite weight non-MS flavor) | For non-enterprise deals (Performant flavor) | For Enterprise Services |
|--|---|---|--|
| | Core Product UTP 1 | Core Product UTP 2 | Solution UTP (SaaS 2.0 and SaaS 2.1 runs) |
| Holdings Microservice | No | Yes | No |
| Marketing Catalogue Microservice | No | No | No |
| Consent Microservice | No | No | No |
| Service Request Microservice | No | No | No |
| Organisational Reference Data Microservice | No | No | No |
| Document Microservice | No | No | No |
| Campaigns Microservice | No | No | No |
| Savings Pot Microservice | No | No | No |
| Aggregation Microservice | No | No | No |
| DBX DB | Yes | Yes | Yes |

| Features | Backends | Microservices | Default offering | Availability |
|-------------------------|------------|--------------------|------------------|---------------|
| Account Sweeps | SRMS, STUB | Service Request MS | Transact | R24 and above |
| Documents | DBXDB, MS | Document MS | DBXDB | R24 and above |
| Campaigns | DBXDB, MS | Campaign MS | DBXDB | R24 and above |
| Single / Multi entities | DBXDB, MS | ORDMS | DBXDB | R24 and above |

Performance improvements are made in the Digital applications (Spotlight and Digital Banking) for the modules listed below in

R24.

- Spotlight Contract and Customer management, Customer role, and Retail Banking User Management modules
- Approval request framework, Approval History
- Customer search and Customer details fetch
- Mobile Native login
- Retail Banking login and Dashboard
- Mobile Login Experience API's
- Mobile Login UI enhancements
- Merging of Arrangement into Holdings

Migration API

Migration APIs for the below functionality are now available for the implementation teams to migrate data from the legacy system to Temenos Digital. These APIs can be used for the R23 version as well.

- Create Contract
- Link Existing Customers to Contract
- Create Virtual User (Digital Only)
- Create Signatory Group
- Create Approval Matrix Rule
- Update Approval Matrix Mode
- Create Beneficiary
- Create Beneficiary for P2P
- Create Beneficiary for Bill Pay
- Update Limit- At the contract level
- Update Limit- At the accounts level

Corporate Lending Origination System (CLOS)

Available from: 202306

- Temenos acquired New Corporate Loan Origination System (CLOS) product which comprises of two applications as mentioned below. Both these apps are base-lined.
 - CLOS User app: The bank user can use admin panel app for administration purpose for managing user profile / ID, facility management, workflow management, other banking parameter setups.
 - CLOS Admin App: The bank user is allowed to initiate and manage credit application. It captures details of facilities, collaterals, documents, risk analysis, approve application, and perform review of application.
- **Others**
 - Enhanced approval functionality to support "Approval at Facility level".
 - Enhanced dashboard page to show "My Requests (Servicing)" and "My Portfolios" in graphical widgets.

Available from: **202308**

- Multiple Pricing at Facility level.
- Adding / Linking Borrowers at Facility Level.

Available from: **202309**

- The credit application can contain a deal, and the facilities will be associated with the deal.

Available from: **202310**

Customer Search

This feature provides the ability to search for a party based on the obligor id (the code with the prefix CA), obligor type, or obligor name. This feature also helps to see the list of all the applications the party plays a role in.

Organization (Legal) Hierarchy

As a component of the Corporate Loan Origination app's development, a logged-in user with the necessary permissions will have the capability to:

- Add the organizational structure of a particular company (referred to as "Party").
- Modify the previously added legal hierarchies from the tabular column.
- View the legal entries added to the legal hierarchy information as a tabular column and a flow chart.
- Remove the added legal hierarchies directly from the tabular column.

Introducing Credit Committee – Secretary Flow

The Secretary should be able to view the conditions added by all committee members for each deal and facility. But they should not be allowed to add any new conditions.

Covenant and Conditions

Enhanced the covenants page both in the user panel and admin app so that we can capture covenant details. The enhancements align the screen and fields with the fields in the covenants screen in Transact.

Available from: **202401**

- CLOS is integrated with Transact APIs for fetching customer details and Deal and Facility Creation.
- Single and Multiple Standalone Facilities (and /or Deal-based facilities) can be created.

Available from: **202402**

- The Collateral Management View screen, the column collateral name has been renamed to "Collateral Type" and in the Cad Collateral view screen, the columns such as Collateral name should be renamed to "Collateral Type" and collateral description to "Collateral Subtype."
- The ORR component name in the admin panel is renamed to "ORR and FRR Models."

- The field displaying Business and Risk in the ORR screen should be renamed to display Business User and Risk User, and the Column name should be "Rating by."
- The eCIB form and eCIB field name under borrower information need to be renamed to Credit Bureau Score.
- The "Bank equity" field should be renamed as "Bank limit," "Group per party," details name should be renamed as "Group limit," and "Regulatory limit: per party" should be renamed as "Regulatory business segment - Per Party limit."
- The screen name should change to ORR/FRR grade setup, and the column names should be renamed to "ORR/FRR" grade code "ORR/FRR" grade key "ORR/FRR" grade Name.
- In The admin panel, Under Credit Policy Management < Clone Workflow, the "clone workflow/ORR Model" should be renamed as "clone workflow" in the view and edit mode.
- In the Admin Panel, Under Credit Policy Management, the "Valuator setup" screen name needs to be renamed to the "Valuer setup" in the admin panel screen. In the User Panel, Under CAD Collateral, the field name "Name of valuator" should be renamed as "Name of valuer." In the User Panel, Under Collateral Management, the field "Valuator by" should be renamed as "Valued by" in the "Collateral Management" user panel Screen.
- In the Admin panel, under Credit Policy Management > Legal Constitution, the fields maximum funded exposure, max non-funded exposure, total exposure, and Basel category need to be removed. Also, in the admin screen, the name "Legal Constitution" should be renamed as "Legal status" to align with the field name in the User panel.
- In the Admin Panel > The Collateral Classification screen and the field "Collateral Classification" in the Collateral Sub type screen must be removed from both the admin and user panel. The "Collateral type" field in the user panel > collateral management should fetch values from the admin panel > Collateral type.
- In the User Panel > Borrower Information Report, Under Bank Checking, the "The Bank " field should be changed from a dropdown to a Free text field. This should be an alphanumeric field.
- In the User Panel > Borrower Information report, Under Market Checking, the following fields, i.e., " Buyer/Supplier/Related Party/Competitors" and "Provided By," should be changed from dropdown to Free-text field. This should be an alphanumeric field.
- In the User Panel > Deals and Facility > Facility General Information screen, A non-mandatory new Field, "Secured/Unsecured Financing," should be added and displayed. This will help to identify each facility as Secured or Unsecured. based on the value selected in this field, i.e., if Secured is selected only, the following fields should be displayed: Coverage percentage and Security Indicator. Validation should be added. If the secured facility is added, then the Collateral Linkage and Collateral Details Page should become Mandatory.
- The Global RM field needs to be removed from the user panel.
- When under the User Panel > Borrower Profile > Business Information > Select Activity, when New/Renew/Amend/onboard existing credit application is chosen, then for that BCA under the " Deal and Facility screen," when the user clicks " Add Facility," then in The Facility Status dropdown it should show "New facility/Amend existing/Renew existing facility." The new facility should be shown in the dropdown until the status of the application is marked as complete.

Available from: **R24AMR**

CLOS - Keycloak Configurations

Integrate the CLOS application with Keycloak and Spotlight, covering the functionalities below:

- Creation of User profiles (Roles) and User ID management (Users) using Keycloak and Spotlight.
- Migration of CLOS admin panel screen to Spotlight.

Merged the CLOS Admin Application with the Spotlight App to have one common place (i.e., Spotlight and Keycloak) for all Bank user creation, role creation, management and Permissions, and Business Parameter maintenance.

- Creating a deep link for the CLOS Admin panel and User Panel in the Spotlight
- To restrict User and Role Creation functionality built-in CLOS Admin app, as these will be done in Keycloak and linked in Spotlight. We will have Edit/Delete from Spotlight (CLOS Admin screen).
- To use the existing user authentication functionality of Key cloak to authenticate users required to log in to CLOS User Panels, and the same user can be used to log in to Spotlight (as SSO).

User Access Restriction

Users who are not tagged to the user profile admin in the user ID management → user profile setup → user profiles (Admin) should have only the view permission to all Admin screens.

Enhancements in CLOS Screens

- In ORR, FRR, and Financial Analysis, exceptions screens; we introduced a "History" button; this button is displayed only when the customer has data captured in these screens in the previous applications. On click of the History button, previous data pertaining to that screen as captured in previous applications are shown. Note: When the user initiates a new credit application, as the data in ORR/FRR/Financial analysis/Exceptions are all freshly entered, the History button is not shown.
- The exception setup screen is enhanced to add a new field. "Approving User Profile," which shows only user profiles tagged as approvers in the workflow.
- Reject functionality is introduced. When the Approver rejects any requests, the corresponding credit application/memo is updated with the status "Rejected."
- Corporate Lending Origination System (CLOS) Admin and User Panel features are available now both on SaaS and On-prem (earlier CLOS was supporting only On-prem implementation, now it also supports cloud Deployment).

The topic related to this feature is given below:

❖ [Corporate Lending Origination System \(CLOS\)](#)

Retail Origination

Available from: **202307**

- In the Origination Financial Information screen following validations are included:
 - When the employment status is unemployed or retired, other income becomes mandatory to be filled in by the customer.
 - When the customer selects any status other than unemployed, Income details (employment or business) become mandatory, and additional Income details are optional.
- The Financial Information section in Assist is enhanced to capture the Income, Expenses, Assets, and Liabilities of the borrower and co-borrowers in an application at the entity overview level.

- The details are captured in respective tabs / screens and consolidated to arrive at the debt-to-income ratio to check the borrower's eligibility for the loan.
- The details captured in the financial information section will be stored against the Entity (borrower or co-borrower) at the Customer Due Diligence (CDD) level.
- The financial information will be available for viewing in the Request Overview.
- A manual task, "Review Financials," will be created to review the financial information by the RM in the Credit Package stage.
- Credit components such as LTV, DTI, and Net Affordability Ratio will be displayed in the header in the Request Overview. Banks will have the option to choose the ratios that need to be displayed through the spotlight configuration.
- The "Haircut" percentage for each of the Income types, Liabilities types, and Asset types will be maintained at the CDD level and will be applied against the respective income, liability, and asset value captured at the entity financial information level.
- Similarly, Net income will be determined after deducting the tax components based on the tax percentage configured in the spotlight. The tax percentage is configured based on the income slabs in the spotlight.
- In the case of existing customers, the system will fetch the financial information data stored in CDD and map it in the Origination Financial information screen.
- This feature is applicable for both Party Microservice and direct Transact integration for party details.

Available from: **202401**

RM Initiated Application – RM Completes Data Entry on Behalf of the Customer

- **Application Data Capture**

RM-initiated application as functionality allows the Relationship Manager of a Bank to initiate an application, capture the details of a Mortgage application, and submit it for further processing.

The RM collects the details from the customer and captures them as and when they are received.

Through this functionality, the RM can save the application in draft mode and continue the data entry at a later point.

Considering the time involved in gathering the complete application information, this feature allows the RM to capture available data into the application and save it. The application saved in the draft system will not check the mandatory field capture; it will check only on the final submission of the application.

The application can be retrieved from the RM's dashboard "My Application" tab with the status "draft" shown. The draft mode application can only be submitted if all the mandatory details are captured.

As the name suggests, the RM-initiated application is the feature currently enabled for the user role "mortgager muser," who can see the "Create New Application" button in the RM dashboard screen. Depending on the Bank's needs, this can be enabled for other user types.

A new screen pops up once the user clicks the "Create New Application" button, allowing the user to capture the product and purpose.

The products currently enabled are Mortgage – First-time Buyer and Remortgage. The user should click the continue button to move on to the basic entity or customer details capture.

In the entity details capture, the user can select an existing customer or add a new (prospect) customer with the basic details

captured: name, DOB, mobile number, and email ID. Once the details are captured, the user can click on the "Proceed to Data Capture" button, which will navigate the user to the detailed data capture screen.

Upon clicking the proceed to data capture system, the customer will be notified with a welcome email and the login credentials.

Following are the sections that are available for the RM user to capture the application data:

- **Entity Information:** In this section, the user will capture the customer's general details, identification details, family details, employment details, and/or business details. Each section of information is grouped under the relevant tabs. RM can capture the details as available and save them. RM can also add a co-applicant and capture a similar set of details.
- **Financial Information:** In this section, the RM will capture the applicants' financial information under the respective tabs – Income, Expenses, Assets, and liabilities. Once the details are captured, the user can save them and find the record created in the summary screen.
- **Product Information - Collateral:** This section allows the user to capture the collateral or the details of the property that is being funded. The customer can select an existing collateral of the customer or add a new collateral. The details should be captured and saved in the Overview, details, Documents, and Comments tab.
- **Product Information - Funding Position:** In this section, the user should capture the source and use of funds related to this loan application. The requested loan amount should be updated; accordingly, the other details must be captured.
- **Product Information - Product:** This section populates the default product details as selected initially and allows the user to capture other information related to the product details.
- **Product Information - Drawings:** In this section, the user should capture the number of drawings or parts the customer wishes to draw for the requested loan amount. A maximum of three drawings can be added as part of the application.
- **Product Information - Interest Pricing:** This section allows the user to capture the details related to interest rates.
- **Product Information - Fees:** In this section, the origination-related fee details are pre-populated; the user can capture the applicable fees and save the details.
- **Documents:** In this section, the user can upload the applicable documents for proof of identification, proof of address, proof of income, and property given as collateral. Once the documents are uploaded, the record can be saved.
- **Narratives:** This section allows the user to capture any remarks about the application that need to be recorded.
- **Summary:** This section displays details of all the sections with the data as captured. The summary view gives the RM an overview of the entire application. The RM can edit a particular section by using the edit option against the respective section or the record; it will navigate them to the edit screens of the respective section.

Once all the details are captured in the RM, the application can be submitted using the Submit button. As long as the information is not fully captured, the mandatory details are not filled in any sections; the application cannot be submitted.

Users can use the save draft option to keep the application in draft mode till such time. If the user no longer requires this application, if the details are wrongly captured, or if the application is not required for any other reason, the user can use the discard option.

Once the application is successfully submitted to the RM screen, the application will flow to the post-submission process in the Assist. The existing process flow for Mortgages applies to RM-initiated applications as well. The application will be assigned to the same RM in the post-submission process.

Since the RM is the user who has done the data capture in the pre-submission in RM-initiated screens, the respective tasks that are part of the Pre-screening stage will be auto-completed as these tasks are again assigned only to the same RM. The rest of

the process in post-submission remains the same as per the existing functionality.

- **RM Initiated Applications Search in Assist**

Users can search for the RM-initiated applications in the Assist using the global search. When the user enters the application ID and press enter for search, they should be able to see the matching application ID shown in the results.

The value to be searched against the "Application ID" generated in ODMS for each of the applications initiated via RM Initiated Application Feature.

This requirement is an extension of the current global search functionality, and as per that the applications initiated through the RM Initiated Applications feature (both sending the link as well as submitting the application on behalf of the customer) should be shown in the result under "My Applications" header.

On click of the search results, the user will be navigated to the respective screens as given below:

- RM Sending a Link application - On Click of the result to be navigated to - If the user clicks on the result under My Applications - application summary screen (View Request). If the user clicks on the result under Requests, it should take the user to Request Overview.
- RM is submitting an application on behalf of the customer. In Draft - Summary Screen – to continue data entry.
- RM is submitting an application on behalf of the customer. Discard - Discarded application summary screen.
- Submitted application summary screen - If the user clicks on the result under My Applications, it should take the user to the Submitted application summary screen. If the user clicks on the result under Requests, it should take the user to Request Overview.

Available from: **202402**

Configuring Formula for Credit Component in the Spotlight

This feature allows the Bank to configure the formulas used in calculating the ratios essential for the Bank to evaluate an application.

A new configuration option, "RETAIL_CREDIT_COMPONENT_FORMULA" is created in the Spotlight System Configuration Temenos Digital Assist for the Bank's policy makers to save the formulas that will be used for arriving at Debt To Income Ratio, Net Affordability Ratio, and Loan To Value.

The fields relevant for creating these formulas are also pre-defined in the system to ensure only appropriate fields are considered for making the Formula. These identified fields are given an "alias name" to represent them in the Formula.

The ratios' formulas can be configured for the pre-submission and post-submission process and can be the same or different as required. The formulas that are configured out of the box are provided here in the tabular.

The ratios that are displayed at the application level in pre-submission and post-submission fetch the latest formulas whenever the data entered is edited or updated by the user.

In pre-submission RM-initiated screens, the application will fetch the latest formulas whenever there is a change in the data in any section, and the user tries to click save and continue.

In post-submission, whenever the RM user updates the application data, the latest Formula is picked up, and when the task for

reviewing financials and Reviewing property evaluation is created, the latest formulas will be picked up to recalculate the ratios.

| Credit Component ** Key value | Format | Formula - To be used in the calculation for RM Initiating Application (Pre-Submission) | Formula - To be used in the calculation for Assist (Post-Submission) | List of fields that should be available (Earmarked) in Spotlight for formula creation. |
|----------------------------------|------------|--|--|--|
| LTV Ratio (loanToValue) | #0.0 0% | (@requestedAmount / @adjPropertyCost) | (@requestedAmount / @valuationAmount) | Requested Loan Amount = requestedAmount, Adjusted Property Value = adjPropertyCost, Property Value = propertyValue, Estimated Property Value = estimatedPropertyValue. |
| DTI Ratio (debtToIncome) | #0.0 0 | (committedExpenses+ EssentialExpenses)/totalNetIncome | (committedExpenses+ EssentialExpenses)/totalNetIncome | Committed Expenses= committedExpense, Essential Expenses = essentialExpenses, Total Net Income = totalNetMonthlyIncome, Total Gross Income= totalGrossMonthlyIncome, Total Expenses = totalExpenses, Quality of living expenses = qualityOfLivingExpenses, Monthly Household expenses = monthlyHouseholdExpenses, Other committed expenses = otherCommittedExpenses, Annual Income = annualIncome, Bonus = bonus, Commission = commission, Rental Income = rentalIncome, Investment Income = investedIncome, |
| Net Affordability | #0.0 0% | ((@totalNetMonthlyIncome - | ((@totalNetMonthlyIncome - | Total Net Income = |

| Credit Component ** Key value | Format | Formula - To be used in the calculation for RM Initiating Application (Pre-Submission) | Formula - To be used in the calculation for Assist (Post-Submission) | List of fields that should be available (Earmarked) in Spotlight for formula creation. |
|----------------------------------|--------|---|---|--|
| Y Ratio (netAffordability) | | $\frac{\text{@totalMonthlyExpenses}}{(\text{@requestedAmount} + (\text{@requestedAmount} * (\text{@interestRate} / 100)) * (\text{@stressTestRate} / 100) + (\text{@totalDebt} * \text{@stressTestRate}))}$ | $\frac{\text{@totalMonthlyExpenses}}{(\text{@requestedAmount} + (\text{@requestedAmount} * (\text{@interestRate} / 100)) * (\text{@stressTestRate} / 100) + (\text{@totalDebt} * \text{@stressTestRate}))}$ | totalNetIncome, Total Monthly expenses= totalMonthlyExpenses, Total Monthly Income=totalMonthlyIncome, Committed Expenses = committedExpense, Essential Expenses= essentialExpense, Total Liability = TotalDebt, Annual Income = annualIncome, Bonus = bonus, Commission = commission, Rental Income = rentalIncome, Investment Income = investmentIncome, Quality of living expenses = qualityOfLivingExpenses, Monthly Household expenses = monthlyHouseholdExpenses, Other committed expenses = otherCommittedExpenses, Requested Loan Amount = RequestedLoanAmount, Interest Rate = InterestRate, Total Debts = TotalDebts, New Debts = RequestedLoanAmount, Stress Test Rate = CASHFLOW_STRESS_TEST_RATE, Indicator borrower rate = BorrowerFee |

Financial Information Section - Liability Tab - Change in Data Capture for the Field "Term Remaining"

In the Financial Information screen → Liability section, the field Time remaining currently allows to capture the balance tenor of

the existing liability of the customer in Years, Months, and Days, but the data that is stored in the Customer Due Diligence Microservice is only months. So, the field is now modified to allow the user to capture it only in Months and store it the same way.

A new display-only field "Duration," is displayed beside the time remaining field to automatically display the months entered in Years and months format accordingly.

This change applies to the financial info section → liability screen in pre-submission RM screens and post-submission entity overview, where the user can capture the existing liabilities of the customer.

Available from: **R24AMR**

Collateral Screen Changes in Pre-Submission RM Initiation Process and Post-Submission Assist Flow

- **Pre-Submission – RM Initiation Process:** Following are the changes that are done in the collateral screen in the RM Initiation process:
 - **Removal of Document Tab:** The Document tab in the Collateral section is removed as that screen pertains to capturing the property valuation detail per the Bank's values, which is done only in the post-submission processing. All the necessary validations that refer to this particular tab and the fields within that tab are removed.
 - **The Advance Rate:** The Advance Rate field in the Overview Tab of the Collateral section will auto-populate from the spotlight configuration and will not be a user-enterable field going forward. By default, the value that is set is 90%. The spotlight will have a new parameter to maintain the advance rate, and if the Bank is required to make changes to the advance, they can do that in the spotlight configuration. Whenever there is a change in the value in the spotlight for the advance rate, the updated value will reflect automatically at the application level. Still, the user has to save the updated calculation in the collateral section to bring that change to the application.
 - The adjusted collateral value will be calculated based on the Property Value (the estimated property value that the customer provides the RM at the time of initiation of the application). The revised formula will be an Adjusted Collateral Value = Property Value (Advance Rate / 100). Users can save the details in any tab in the Collateral section. Till now, the save button was enabled only in the Comments tab, but going forward, the save button will be enabled in all the tabs of the collateral section, and the user can save the details as and when required.
- **Post-Submission – Assist**

Following are the changes that are done in the collateral screen in the Post submission process and the Entity Overview:

 - **Document Tab:** There is no change in the Document tab in the Collateral section in the Entity Overview and other the overviews in post submission. Initially, when the application moves from pre-submission to post-submission, the "Property Value" from the pre-submission RM screen will be auto-populated in the Valuation Amount field in the document tab. This field will be editable; whenever the Bank does the actual valuation, the updated valuation amount can be captured in the same field.

- **Recalculation of LTV:** Whenever the property "Valuation Amount" field is edited, it will automatically recalculate the Loan-to-Value (LTV).
- **Advance Rate Field:** The advance rate field will be non-editable in the Assist Post-Submission as well, across all overviews (RO, PO, EO).
- Users will be allowed to save the details in the Collateral section in any tab when accessing it in the Entity Overview. Till now, the save button was enabled only in the Comments tab, but going forward, the save button will be enabled in all the tabs of the collateral section, and the user can save the details as and when required.

LTV Credit Component – Changes in MS

The calculation of credit components or ratios like DTI and Affordability ratio is done based on the formulas configured in the spotlight, and the ratio values are shown at the application level, except the LTV, which was coming from an MS. From now on, even the LTV will be calculated through the formula configured in the spotlight. The option to configure the formula for LTV is already available in the spotlight.

F. Funding Screen-related Validation in RM Initiated Process

Following are the additional validations included in the RM-initiated process concerning changes in the funding screen in the Product Information section.

- **Requested Loan Amount Validation**
 - When the user updates any information in the funding position section and saves the data, the system will verify that the requested loan amount is less than or equal to the maximum eligible loan amount.
 - If there is a mismatch, the system will display an error message and not save the updates. Message text: "The requested loan amount should be less than or equal to the maximum eligible amount."
 - This is an additional validation apart from the existing validation to ensure that the total source of funds is more than or equal to the total use of funds when the deficit is displayed in red. If the validations pass, the changes will be allowed to be saved.
 - Note - for fees defined as a percentage, since only the percentage is stored, the fee amount will be automatically calculated and displayed in the fee section.

Validation in the Submit Button

- It should ensure that the application moves further only if the "Requested loan amount" is less than or equal to the maximum eligible loan amount.
- If not, the system will stop the application by displaying the error message "The requested loan amount should be less than or equal to the maximum eligible amount."
- Also, the system will ensure that the requested loan amount in the funding position matches the overall requested loan amount in the product and drawing sections. If not, the system will move the application and display the error message

"Please make sure that the requested loan amount captured in the Funding section matches the overall requested loan amount in the Product section and in the Drawing section."

d. The validations mentioned above will be triggered once the mandatory check validation is successfully passed.

- **Recalculation of Credit Components**

The recalculation of the credit component ratios will be done automatically once the user saves the Funding Position screen and clicks on continue.

The topic related to this feature is given below:

❖ [Retail Origination](#)

SME Origination

Available from: **202311**

- **Integration of FCM in the Verification stage of SME origination- Infinity Assist for Sanction Screening test**

In the Verification stage of Infinity Assist, the Compliance Check task will be done by integrating with FCM, where the external system FCM screens the primary applicant/company and co-applicant/co-party to find whether he/she is there in any Sanction List/Blacklist and gives the result as True hit or No hit.

- **Integration of FCM in the Verification stage of SME Origination- Infinity Assist for PEP analysis**

In the Verification stage of Infinity Assist, the Compliance Check task will be done by integrating with FCM, where the external system FCM screens the primary applicant/company and co-applicant/co-party to find whether he/she is a politically exposed person and if any risk associated with them and gives the result as yes/no for PEP customer and type of risk configured in FCM.

- **Integration of FCM in the decision-making stage of SME Origination- Infinity Assist to get the KYC risk score**

In the decision-making step, which we call the underwriting stage in Temenos Digital Assist, the FCM will be integrated by analyzing all details of the primary applicant/company, and co-applicant/co-party FCM will generate the overall final KYC risk score after considering various risk parameter (configurable as per client requirement) to arrive at the risk score.

Available from: **202401**

- A new enhancement has been introduced in the workflow in the case of the error handler today; when an application went into error handler until the user went and checked the PAM workflow, he was not sure what had caused the issue, so we have enhanced to trigger an email to the configured user in the spotlight to send the error details.
- This enhancement applies to both Retail and SME journeys.

Available from: **202402**

- In Temenos DigitalAssist, enhanced the work flow APIs on the performance.

The topic related to this feature is given below:

- ❖ SME Origination

Spotlight

Available from: **202307**

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.

- **Implementing the solution for daylight saving time in Spotlight**

The spotlight application should reflect the correct time zone based on Daylight-Saving Time (DST).

Following is the list of modules where these changes have been applied:

- Messages
- Audit Logs
- Customer Management
- Help Center - Messages
- Activity History
- Device Info
- Enrollment Requests (Contract management)
- Terms and conditions
- Service Outage Messages

Spotlight Demo Data

To provide Spotlight demo data DB scripts for the demo system on the MDS system for a few modules.

- System Configurations

DB scripts have been created to update certain configurations in the spotlight.

Account_types, Retail/Sme_offer_acceptance, assesment_mock, dateFormat, Auto_Sync_Accounts.

Available from: **202308**

- Deep linking of Spotlight has been done in Temenos Explorer (TeX). So if we log in to TeX, then from there, without additional login, we can navigate to Spotlight based on the role that we select.
- Multi-upgrade Utility not available for MSSQL:
 - Multi entity data upgrade tool supports MSSQL database.

- Demo data scripts for the MDS environment in the following modules:
 - Dashboard
 - Alerts
 - Logs
 - Employee Roles
 - Locations (application content management)
 - Campaigns
 - Features
 - Customer roles
 - Service definitions
 - Limits

Available from: **202312**

- Spotlight application is now built using the upgraded Visualizer 202307.03.
- Enhance Campaigns to support Internal Fabric Services as Data context.
- Introduction of a new feature/action, "Simulate early payoff" at customer / account level for mortgage facility overview account with one associated loan.

Configurations

- EARLY_PAYOFF_SIMULATE_DAYS - a new configuration developed in the DBP bundle to manage the calendar date selection by the user in the Early payoff simulation screen. By default, this will be set as a '20 day' basis, and the user will be able to select 20 days in the future from the current date in the calendar selection of the Payoff simulation.

Available from: **R24AMR**

- Microservice dependency for Campaigns Designer in Spotlight and Campaigns Engine is removed, and the details are fetched from DBXDB.
- Microservice dependency for ORDMS for Multi-entity is removed, and the details are fetched from DBXDB.

Maker Checker

- Maker Checker has been enabled for the below features:
 - Enroll Customer
 - Edit Customer
 - Create/Edit Contract
 - Create/Update/Delete Signatory group
 - Create/Update Approval Rules
 - Activate/Suspend User

- Create/Edit Customer Roles
- Service Outage message

For Enroll Customer, Edit Customer, Create/Edit Contract, Create/Update/Delete Signatory group, handcrafted screens will be there where we show old and new value as well. For other modules, it would be only updated changes in Key-Value pairs.

- The Maker Checker framework can used to apply to other modules in Spotlight to enable Maker Checker.

Fixes

CSR Assist has been deprecated since 202104 and is now in 202404 removed from the permission list and from Spotlight.

The topic related to this feature is given below:

❖ [Spotlight](#)

Microservices

Origination Data Storage

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.

Available from: **202307**

- Added Mongo Azure POM XML file for onboarding security test in UTP.
- AWS jar size reduction.

Available from: **202311**

- One Helm Enablement / UTP Onboarding.
- One Helm for ODMS - K8 / AKS / EKS.
- Events for Audit trail in ODMS (entityItems).

Available from: **202312**

- One Helm for ODMS - K8 / AKS / EKS.

The topic related to this feature is given below:

❖ [Origination Data Storage](#)

Organisational Reference Data Microservice

Available from: **202307**

- AWS Jar size reduction.
- Added Azure Mongo POM.xml.

Available from: **202311**

- One Helm for ORDMS - K8.

The topic related to this feature is given below:

❖ [Organisational Reference Data 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.

Available from: **202309**

- Development of CRUD APIs for MCMS - facilities.
- Development of New CRUD APIs for facilityType.
- Development of New CRUD API for dayBasis.
- Development of New CRUD API for featureType.
- Data Packager - Marketing Catalog.

The topic related to this feature is given below:

❖ [Marketing Catalog](#)

Due Diligence

Due Diligence microservice enables the banks to handle local regulations regarding the intentions of the customer 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 can support local regulations across different geographies.

Available from: **202312**

- Events Audit for Due Diligence (Assessment Event, Asset Liab Details, Financial Information, reference, and source of funds).

The topic related to this feature is given below:

❖ [Due Diligence](#)

Holdings

Holdings Microservice has been enhanced to handle a complex events for Temenos Enterprise pricing process and aggregate them based on the quotation reference, which is coming as part of the Business event payload and if the value in quotation reference is found, then all the other events will be aggregated which has same quotation reference in it.

Holdings Microservice has now been extended to hold the Balance and Activities. Business Microservice features and their APIs as part of MS Consolidation. Temenos Enterprise Pricing uses enhanced Holdings Microservice for their enterprise pricing.

Party MS supports Temenos Packager for packaging and release the Master data/Reference data. This Temenos Packager can be used to release the base master data / reference data from L1, L2 and also L3 after deploying the Microservices.

Available from: **202306**

- Merging of Arrangements functionality into Holdings MS.
- Enabling the support to store details of the services linked with an account.
- Enabled the property "db_upgrade_start_version" in all the stacks to specify the version of the Microservice solution from

which the DB upgrade is being performed.

- Upgraded the Tomcat image version for docker and Kubernetes deployments.

Available from: **202308**

- Commit Capture Data events through outbox (Enrichments Tables - events consumption).
- Commit Capture Data events through outbox (Holdings Tables - events consumption).
- Commit Capture Data events through outbox (Arrangement Related Entities - Event consumption).
- Commit Capture Data events through outbox (JOLT spec E2E testing and delivery as Data Packager).
- Commit Capture Data events through outbox (AWS Deployment).
- Commit Capture Data events through outbox (Azure Deployment).
- Commit Capture Data events through outbox (K8 Deployment).

Available from: **202309**

- CupdateContractBalance - business event.
- Ingestion from PHMS into HMS.

Available from: **202310**

- Holdings API - Company ID as header.
- Addition of a Column in search payments.
- Data Packager - PHMS.

Available from: **202311**

- Ingestion from Transact Legacy modules (Arrangement, Account Arrangement, Lending Arrangement, Party Arrangement).
- Development of New GET API for the “businessContractActivity” entity.
- Event Ingestion from Transact to HMS (Arrangement Event Processed, Arrangement Bills, Schedule Details, Payment Schedule, Posting Restrict).
- Summary event in Holdings.

Available from: **202312**

- Holdings Microservice data model include storing of Payment transactions.

The topic related to this feature is given below:

❖ [Holdings](#)

Document Storage

Document Storage Microservice provides the virus-free documents hosting capability for Infinity and core banking system.

Available from: **202311**

- Events For Audit Trail in Doc MS (Evidence, Application fulfillment, Application Evidence, and Owners).

Available from: **202312**

- Events For Audit Trail in Doc MS (Evidence, Application fulfilments, Application Evidence, and Owners).

The topic related to this feature is given below:

❖ [Document Storage](#)

Consent Management

The Consent Management Microservice stores the consents received from the Third-party provider (TPP).

Available from: **202306**

- AKS enablement for Consent Microservice.

Available from: **202307**

- Change in az (SQL).
- Terms and Conditions Consent DDL changes.
- Updated column name description to title for TermCondition_title collection table for Postgresql.
- Commented out the curl command to execute the appinit program in the AWS install script.

Available from: **202311**

- Delivering reference data records in Consent MS for Infinity Apps functionality.

Available from: **202312**

- Events for Audit Trail in Consent MS (partyConsentDetails).

The topic related to this feature is given below:

❖ [Consent Management](#)

Account Aggregation

Account Aggregation is an online service, which allows you to consolidate a range of accounts and other financial information into one interface to simplify the management of personal finances. To bring them into the Infinity fold, Account Aggregation makes use of the Account Aggregation Microservices and a MarketPlace partner solution.

Available from: **202307**

- Change in az (SQL).

❖ Account Aggregation

Arrangement

Arrangement Microservice persists all the static information of the arrangements in the core banking system and provides the same details to the digital front office during the stand-in processing or a planned outage (For example, online upgrade of Temenos Transact).

Available from: **202306**

- AMS Data packager vocab standardization.

Available from: **202307**

- Change in az (SQL).
- AKS Enablement.
- Removed Jersey dependencies in container package.

The topic related to this feature is given below:

❖ Arrangement

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.

Available from: **202311**

- UTP Onboarding - SRMS / PARTY - ONE HELM.

Available from: **202312**

- SRMS Configurations for Trade Supply Finance.

The topic related to this feature is given below:

❖ Service Request

Corporate LOS

This Microservice enables lending facility for a corporate customer under Bilateral lending arrangement. The corporate 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 etc.

Available from: **202307**

- Syntax correction in docker files.
- Fixed Junit failure during 202306 build.
- AWS Jar size reduction.
- Added Azure Mongo POM.xml file.

Available from: **202311**

- Events for Audit trail in OPMS (Additional Instructions, BridgeLoanInfo, CollateralValuations, ConnectedLoans, FinancialResult, RecentlyViewedRequest, Collateral).

Available from: **202312**

- Azure Deployment.

The topic related to this feature is given below:

❖ [Corporate LOS](#)

Party

Party Microservice is used to store various details about the party (customers in Transact) such as personal information, identity details, address details, and so on. A user can create/update/get parties by using the Enterprise APIs of the party Microservice Enterprise APIs.

Available from: **202306**

- Development of CRUD API for Party Microservice (Entity - personPositionType).

Available from: **202307**

- Data packager API.
- Creation of swagger.
- AWS Jar size reduction.
- Ingestion through JOLT spec - Phase 2.

Available from: **202311**

- Events for Audit Trail in Party MS (Party Assessment, Party and Party Relations).

Available from: **202312**

- Events for Audit Trail (Observation, Roles, Addresses, and Employment Details).
- Events for Audit Trail in Party MS (Party Assessment, Party, and Party Relations).
- Events for Audit Trail in Party MS (Party Identifiers).

The topic related to this feature is given below:

❖ Party