Configuration Guide **PUBLIC**

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Configuration Guide for SAP Cash Management powered by SAP HANA

Content

Document History

Table 1:

Version	Date	Description
1.0	2017/02/??	Initial version of the Configuration Guide for SAP Cash Management powered by SAP HANA

1 Purpose and Target Groups

This guide introduces the activities that you need to configure for using SAP Cash Management powered by SAP HANA, as part of SAP Simple Finance, On-Premise Edition.

> **Note**
>
> You can find the most current version of this document on SAP Service Marketplace at http://service.sap.com/erp-inst. We strongly recommend that you use the document available there. The guide will be updated according to updates of the software.
>
> For app-specific implementation information, for example, authorization roles and OData services, see the app implementation document of the corresponding app. You can find the app documentation for Cash Management apps at http://help.sap.com/sfin200 ▶ *SAP Fiori for SAP Simple Finance, On-Premise Edition* ▶ *<Language>* ▶ *Cash Manager* ▶.

Table 2:

Release	SAP Simple Finance, On-Premise Edition 1503
Application Component	FIN-FSCM-CLM
Target Groups (Roles)	Application Consultants

2 Prerequisites

You have fulfilled the following prerequisites before you continue with the activities documented in this guide:

- You have installed SAP Simple Finance, On-Premise Edition 1503.
  For more information, see the Administrator's Guide for SAP Simple Finance, On-Premise Edition in the SAP Service Marketplace at http://service.sap.com/erp-inst *SAP ERP Add-Ons* *SAP S/4HANA Finance, On-Premise Edition* *SAP S/4HANA Finance, On-Premise Edition 1503*.
- You have finished the migration for SAP Accounting powered by SAP HANA.
  For more information, see the Migration Guide in SAP Library at http://help.sap.com/sfin200.
- You have finished the configurations for SAP Simple Finance, On-Premise Edition.
  For more information, see the Configuration Guide for SAP Simple Finance, On-Premise Edition in the SAP Service Marketplace at http://service.sap.com/erp-inst *SAP ERP Add-Ons* *SAP S/4HANA Finance, On-Premise Edition* *SAP S/4HANA Finance, On-Premise Edition 1503*.
- You have switched on the business function FIN_FSCM_CLM.
- Make sure you apply all the mentioned notes in SAP Note 2138445 (Release Information Note: SAP Cash Management powered by SAP HANA) according to your product version.

3 Configurations for Bank Account Management

3.1 Bank Account Master Data

3.1.1 Number Ranges for Bank Account Technical IDs

In bank account master data, each bank account is assigned with a technical ID when created. To define the technical ID assignment rules, configure the following Customizing activities under *Financial Supply Chain Management* > *Cash and Liquidity Management* > *Bank Account Management* > *Basic Settings*:

1. In the Customizing activity *Define Number Ranges for Bank Account Technical IDs*, define number ranges for bank account technical IDs.
2. In the Customizing activity *Define Settings for Bank Account Master Data*, on the *Bank Account Master Data Setting* tab, specify a number range for the *Tech. ID No. Rang* field.

3.1.2 Number Ranges for Change Requests

The system automatically assigns a number to a change request once it is created in Bank Account Management. To configure the change request ID assignment rules, configure the following Customizing activities under *Financial Supply Chain Management* > *Cash and Liquidity Management* > *Bank Account Management* > *Basic Settings*:

1. In the Customizing activity *Define Number Ranges for Workflow Change Requests*, define number ranges for change requests.
2. In the Customizing activity *Define Settings for Bank Account Master Data*, on the *Bank Account Master Data Setting* tab, specify a number range for the *Req. No. Rang* field.

3.1.3 Bank Account Types

Bank account type is one of the attributes in bank account master data. You can define different types of accounts to suit different business purposes. Account types can be used as an analysis dimension in reporting and planning. Using bank account types, you can also define different approval patterns for bank accounts of different types. For more information, see Payment Approval Process [page 8].

To maintain bank account types, in Customizing activity *Define Settings for Bank Account Master Data*, define account types on the *Account Type Definition* tab. You can find this activity under *Financial Supply Chain Management* > *Cash and Liquidity Management* > *Bank Account Management* > *Basic Settings*.

3.1.4 Bank Statement Import Methods

Bank statements can be imported using different methods, for example via SWIFT or by manual import. On the *Additional Data* tab for each bank account master record, you can specify one of the defined methods as the *Import Method for End-of-Day Statements*, and one as the *Import Method for Intra-Day Statements*.

To define the import methods, in Customizing activity *Define Settings for Bank Account Master Data*, on the under *Define Import Methods for Bank Statements* tab, define method IDs and descriptions. You can find this activity under *Financial Supply Chain Management* > *Cash and Liquidity Management* > *Bank Account Management* > *Basic Settings*.

3.2 Payment Approval Process

3.2.1 Introduction

With Bank Account Management, you can define different approval processes for different bank accounts by configuring signatory groups and approval patterns. To use this function, configure the following:

3.2.1.1 Enable Payment Approval Process

In order to enable the payment approval process with payment signatories in Bank Account Management, you first need to configure the following Customizing activities for Bank Communication Management, under *Financial Supply Chain Management* > *Bank Communication Management*:

1. In the Customizing activity *Payment Grouping* > *Rule Maintenance*, create a rule for payment approvals. In the rule definition, you can use payment attributes (company code, payment method, currency, and so on) to define the coverage of the payment approval process. The payment approval process applies only to payments that are covered by the rule.
2. In the Customizing activity *Payment Grouping* > *Additional Criteria for Payment Grouping*, define a grouping method for the rule you defined.
   To use the payment approval process with payment signatories in Bank Account Management, you need to group payment batches by house bank account. To do so, specify the rule ID and enter `HKTID` as the *Grpng. Field 1*. You can specify another criteria for payment grouping in *Grpng. Field 2*, if necessary.
3. (Optional) If you want to define a scenario where payment approval is not required, for example, for payments with small amounts, you can define a rule in Customizing activity *Release strategy* > *Marking Rules for Automatic Payment (No Approval)*.
4. (Optional) If a signature is required when users approve payments, you can configure it in the Customizing activity *Basic Settings* > *Basic Setting for Approval*, create an entry and select the *Signature Required* checkbox.
5. (Optional) To define the signature method for approving payments, you can configure it in the Customizing activity *Release strategy* > *Digital Signatures* > *Specify Signature Method for Approval Using Simple Signature*.

3.2.1.2 Configure Payment Signatories

After you enable the payment approval process in Bank Communication Management, you can proceed to configure the signatories and payment approval patterns in Bank Account Management.

1. Enable the signatory function

   To do so, in Customizing activity *Enable Signatory Control*, under *Financial Supply Chain Management* > *Cash and Liquidity Management* > *Bank Account Management*, enable the function by assigning the required function modules.
2. Define signatory groups, approval patterns, and pattern priorities

   To do so, in Customizing activity *Define Settings for Bank Account Master Data*, under *Financial Supply Chain Management* > *Cash and Liquidity Management* > *Bank Account Management* > *Basic Settings*, configure the following:
   1. Define Signatory Groups

      You can group signatories into different business groups. For example, in your company, payments made on salary accounts need to be approved firstly by the HR department and then by the Finance department. In this case, you can define two signatory groups respectively for users in these two departments.

      In the bank account master data, you can define multiple signatories for each bank account. The system automatically sends the approval request to eligible signatories according to the signatory group they belong to, the validity of the signatory, and the amount limit the signatory is entitled to.
   2. Define Approval Patterns

      Approval patterns represent different approval processes. To define an approval pattern, you specify the signatory groups involved and their corresponding approval sequences.

      You can configure the approval patterns for the following scenarios:
      - The payment is approved by a single signature.

        To do so, define a sequential approval pattern with only one step.
      - The payment is approved by a joint signature where more than one signatures are required and signatories approve the payment in a certain order.

        To do so, define a sequential approval pattern with two to four signatory groups.
      - The payment is approved by a joint signature where more than one signatures are required and signatories approve the payment regardless of the sequential order.

        To do so, define a non-sequential approval pattern with two or more signatory groups.
   3. Assign Approval Patterns

      You assign approval patterns to bank account types and company codes. For information on how the assignment works, see the implementation guide for Customizing activity *Define Settings for Bank Account Master Data*.

3.3 Cash Pools for Cash Concentration

With Bank Account Management, you can create cash pools based on a bank account group structure and use cash concentration to centrally manage your cash. To enable the cash concentration function, define the following

in Customizing activities under *Financial Accounting (New)* > *Bank Accounting* > *Business Transactions* > *Payment Transactions*:

- Under *Payment Request*, define clearing accounts for receiving banks in Customizing activity *Define Clearing Accts for Receiving Bank for Acct. Transfer*.
- Under *Payment Request*, define clearing accounts for paying banks in Customizing activity *Define Clearing Accts for Cross-Country Bank Account Transfers*.
- Under *Payment Handling* > *Bank Clearing Account Determination*, define bank clearing account determination logic in Customizing activity *Define Account Determination*.

3.4 Workflows

3.4.1 Introduction

SAP provides predefined workflow processes for opening, modifying, closing, and reviewing bank accounts in bank account master data. You can use the predefined workflows or design your own workflows according to your business needs.

3.4.1.1 Settings for Using Workflows

Use

To use SAP Business Workflow in Bank Account Management, follow the steps below to set up the necessary settings:

Procedure

1. To enable the workflow function for Bank Account Management, you need to maintain the event type linkage for workflow processes used in Bank Account Management in Customizing activity *Maintain the Event Type Linkage for Triggering Workflow Processes*, under *Financial Supply Chain Management* > *Cash and Liquidity Management* > *Bank Account Management*:
   - If you use the predefined workflow template, the standard linkage is activated by default and you do not need to do anything.
   - If you want to use your own workflow template, you can add and activate a new entry and deactivate the default one.
2. Define the organization and staffing for your company.
   - To create new organization and staffing, use transaction `PPOCE`.
   - To change the existing organization and staffing, use transaction `PPOMW`.

For more information, see the linked documentation in the transaction by choosing *Help* > *Application Help*.

3. To define responsibilities for the workflow rules used in your workflow processes, configure the Customizing activity *Define Responsibilities for Rules Used in Workflow Steps*, under *Financial Supply Chain Management* > *Cash and Liquidity Management* > *Bank Account Management*.

> **Note**
>
> If the agent assignment does not work as what you have defined in the responsibilities, check the agent assignment settings of the workflow tasks.
>
> To do so, proceed as follows:
>
> 1. In transaction **PFTC**, specify the workflow task that you want to check.
> 2. From the menu bar, choose *Additional Data* > *Agent Assignment* > *Maintain*.
> 3. Choose the *Attribute* button.
> 4. Select *General Task* and then choose *Transfer*.

4. When making changes to the bank account master data, only fields that are defined as sensitive fields can trigger the workflow process. To define sensitive fields, specify the fields in Customizing activity *Define Settings for Bank Account Master Data*, under *Financial Supply Chain Management* > *Cash and Liquidity Management* > *Bank Account Management* > *Basic Settings*. On the *Sensitive Fields for Modification Process* tab, define the fields that can trigger a workflow process when modified.

3.4.1.2 Settings for Customer-Defined Workflows

If you want to use self-designed workflows in Bank Account Management, follow the steps below to set up the necessary settings:

> **Note**
>
> You can skip this section if you use the predefined rules and workflow templates. For more information about the predefined rules and workflow templates, see Predefined Workflows [page 12].

1. To determine the agent assignment in workflows, define rules in *Maintain Rule* (transaction `PFAC`)
   To define your own rules, you must include the following elements with the exact technical names:
   - *Company Code* (Technical name: `AGENTDET_BUKRS`)
   - *Account Type* (Technical name: `AGENTDET_ACCTYPE`)

   To work with workflow template 74300049 FCLM_AMD_MM (workflow for changing a signatory in multiple bank accounts), set the above two elements to **#** so as to include all the company codes and account types as the workflow is for changing multiple bank accounts at the same time.
2. To assign the rules to the corresponding workflow steps, you can do so in Workflow Builder (transaction **SWDD**).
3. To define the workflow process according to your specific business requirements, you can create workflow templates in *Workflow Builder* (transaction **SWDD**).

3.4.1.3 Predefined Workflows

Business Object Repository Object

SAP predefines a Business Object Repository (BOR) object `FCLM_CR` for Bank Account Management. In this object, the following two events are defined:

- `CREATED`: This method is used to trigger the workflow by creating a change request.
- `PROCESSED`: Dialog step in approval process which was processed.

Rules

- 74300006 `FCLM_CASHMGR`
  The rule assigns a cash manager user as the agent.
  In Bank Account Management, a cash manager is authorized to approve or reject a change request of creating, changing, or closing bank accounts.
- 74300007 `FCLM_CASHOPER`
  The rule assigns a bank accountant user as the agent.
  In Bank Account Management, a bank accountant works under cash managers' supervision and is responsible for opening, changing, and closing bank accounts.
- 74300008 `FCLM_CASHSYSCOLL`
  The rule assigns a key user as the agent. In Bank Account Management, a key user is responsible for making necessary configurations for bank accounts and house bank accounts.
- 74300013 `FCLM_REVWOR`
  This is a fixed rule, therefore you cannot define responsibility for this rule.
  The rule retrieves the contact persons defined in the bank account master data from the *General Contact* field (on the *General Data* tab, under the *Internal Contact Persons* section).

Workflow Templates

The following predefined workflow templates are available. For detailed information, refer to the template definition in the system.

- Workflow template 74300043 `FCLM_AMD` (General workflow for working with bank account master data)
  The following sub-workflows are defined for the typical business scenarios of opening, changing, and closing bank accounts:
  - 74300047 `FCLM_AMD_OP` (Workflow for opening a new bank account)
    The following process is defined with this template:
    1. A bank accountant creates a bank account master record in the system.
       The system triggers a change request and sends the information to a cash manager for approval.
    2. After evaluating the request, the cash manager can either approve or reject the request.
    3. If the cash manager approves the request, the bank accountant opens the bank account in bank and maintain necessary information for the bank account master record in system, for example, bank account number, IBAN number, and so on.

If the bank account is opened in a bank that does not exist in the system, the bank accountant should create the bank first in the system.

4. A key user finishes the necessary configuration, for example, creating house bank accounts and assigning these accounts to the newly created bank account master record.
   If the corresponding general ledger accounts are not yet available, the key user should create the general ledger accounts first.

- 74300048 `FCLM_AMD_MD` (Workflow for changing a bank account)
  The following process is defined with this template:
  1. A bank accountant modifies a bank account master record in the system.
     The system triggers a change request and sends the information to a cash manager for approval.
  2. After evaluating the change request, the cash managers can either approve or reject the request.
  3. If the cash manager approves the request, the bank accountant notifies the bank to make the necessary changes. After the bank accountant confirms that the changes have taken effect from the bank side, he or she confirms the step in the system.
     The changes are updated to the bank account master data.
  4. A key user updates the configuration if necessary.
     For example, if a new currency is added, the key user needs to create a house bank account for the new currency and then assigns the house bank account to the bank account master record.
- 74300049 `FCLM_AMD_MM` (Workflow for change a signatory in multiple accounts)
  The process defined with this template is the same with the 74300048 `FCLM_AMD_MD`.
- 74300050 `FCLM_AMD_CL` (Workflow for closing a bank account)
  The following process is defined with this template:
  1. A bank accountant closes a bank account in the bank account master data.
     The system triggers a change request and sends the information to a cash manager for approval.
  2. After evaluating the change request, the cash manager can either approve or reject the request.
  3. If the cash manager approves the request, the bank accountant notifies the bank to close the bank account. After the account is closed in the bank, the bank accountant confirms the step in the system.
  4. A key user finishes the necessary configuration.
     For example, the key user can mark the related house bank accounts as closed in their descriptions to distinguish them from other functional house bank accounts.
- 74300065 `FCLM_AMD_RV` (Workflow for reviewing bank account master data)
  The following process is defined with this template:
  1. A cash manager selects the bank accounts to be included into a review process.
     The system detects the responsible contact person of each selected bank account and sends out a request to each contact person respectively. Each contact person receives a request that contains all the bank accounts that he or she is responsible for and selected for review.
     The contact persons who are responsible for bank account review are defined in the *General Contact* field in the bank account master data (on the *General Data* tab, under the *Internal Contact Persons* section).
  2. After reviewing the bank account master data of their responsible bank accounts, account contact persons can either mark the bank account as reviewed or directly update the master data if they spot any incorrect information.
     Modifying the bank account master data may trigger another workflow, depending on the fields that are changed.
  3. The contact person completes the request after all the bank account in the request are marked as reviewed.

3.4.1.4 Standard Task 74300047 FCLM_DEC

This information is very technical, you only need to read it if you want to understand the technical details of the standard task or you want to enhance the standard task.

Table 3:

Standard task	74300047
Abbreviation	FCLM_DEC
Name	Bank Account Management: Decision

Method Referenced, Properties

- Object type:FCLM_CR
- Method: PROCESS (Process)
- Properties: Object method with dialog

Agent Assignment

The agent assignment depends on the workflow template in use.

Important Elements

The table below explains the important elements in the task container:

Table 4:

Technical Name	Description	Properties	Information
INDICATOR_APPROVE	Approve Indicator	Import, Export	This element is used for the decision of the current step. When the step is approved, the element is set to X.
CHANGE_REQUEST	Change Request	Import, Export, Mandatory	This element stores the general data of change requests in database table FCLM_BAM_REQUEST.

Technical Name	Description	Properties	Information
APPROVE_STATUS	Approved Status	Import, Mandatory	This element stores the next status when the current step is approved.
REJECT_STATUS	Rejected Status	Import, Mandatory	This element stores the next status when the current step is rejected
DESP_OTR_ALIAS	Step Description	Import	This element stores the OTR text alias string that contains the description text for the current step.
AGENTDET_BUKRS	Company Code	Import	This element stores the company code used for agent determination.
AGENTDET_ACCTYPE	Account Type	Import	This element stores the account type used for agent determination.
NEXT_STEP	Next Step	Import	This element stores the next step, so that the system can adjust the UI display to the next step accordingly, once the current step is completed.
PREV_STEP	Previous Step	Import	This element stores the previous step so that the system can adjust the UI display to the previous step accordingly, once the current step is rejected.

3.5 Extensibility Options

The following extensibility options are available for you to enhance Bank Account Management:

- Add customer-defined fields
  To do so, you can add self-defined fields to structure FCLM_BAM_AMD. After you activate the fields, you can add the fields to existing tabs of the bank account master data.
  For more information, see “Customizing FPM Applications” in the SAP Help Portal at http://help.sap.com/nw74 ▶ *Developer's Guide* ▶ *UI Technologies in SAP NetWeaver* ▶ *Web Dynpro ABAP and Floorplan Manager* ▶ *Floorplan Manager for Web Dynpro ABAP* ▶ *Adapting FPM Applications* ▶ *Customizing FPM Applications* ▶.

- Business Add-Ins (BAdIs)

  You can find the BAdIs for Bank Account Management under *Financial Supply Chain Management* > *Cash and Liquidity Management* > *Bank Account Management* > *Business Add-Ins (BAdIs)*:

  - *BAdI: Field Statuses and Field Checks*
    You can use this BAdI to define the following:
    - Field statuses for fields used in bank account master data, for example whether a field is read-only, changeable, mandatory, or hidden
    - Additional checks for bank account master data
    - Whether it is mandatory or not for users to enter a note when they approve or reject a request.
  - *BAdI: Bank Account Number Mapping Between BAM and HBA*
    You can use this BAdI to define the mapping logic of bank account numbers and house bank account numbers, and the other way round. For example, due to the length limit of house bank account number, some customers use another field to store the bank account number such as Alternative acct no. You can use this BAdI to specify which field to map to.
  - *BAdI: Events After Bank Account Activation*
    You can use this BAdI to define events that you want to trigger after a bank account master record is activated, for example sending a notification message to inform concerned persons.
  - *BAdI: Bank Account Master Data Fields in Change Requests*
    You can use this BAdI to define which fields in bank account master data should be recorded in change requests when their values are changed. Changes made to fields included in change request can be tracked by change history.
  - *BAdI: Payment Approval Pattern Determination*
    You can use this BAdI to override the payment approval patterns defined in Customizing activity *Define Settings for Bank Account Master Data* with your own logic and definition.

3.6 ICF Services

Before you use the Web Dynpro application for Bank Account Management, you need to activate the following services.

To do so, in *Maintain Services* (transaction code **SICF**), search for a service by entering the service name, and then activate it.

To activate a service, right click on the service and then choose *Activate Service*.

The following services must be activated:

- Web Dynpro services
  - `WDA_FCLM_BAM_ACC_MASTER`
  - `WDA_FCLM_BAM_ACC_REVIEW`
  - `WDA_FCLM_BAM_ADAPT_SIGN`
  - `WDA_FCLM_BAM_BANK_DATA`
  - `WDA_FCLM_BAM_CHGREQ`
  - `WDA_FCLM_BAM_HIERARCHY`
  - `WDA_FCLM_BAM_HIER_BP`
  - `WDA_FCLM_BAM_HIER_MAINTAIN`

- WDA_FCLM_BAM_MASS_CHANGE
- WDA_FCLM_BAM_REVIEW_REPORT
- WDA_FCLM_BAM_REQOVERVIEW
- WDA_FCLM_REPORT
- WDA_FCLM_UPLOAD_DOWNLOAD

- Workflow services
  - ibo_wda_inbox
  - swf_formabsenc
  - swf_workplace
  - UCT_DISPLAY_DOCUMENT
  - UCT_DISPLAY_INBOX
  - UCT_DISPLAY_SIGNOFF
  - UCT_DISPLAY_CHANGE
  - USMD_CREQUEST_PROTOCOL2
  - USMD_SSW_RULE
  - USMD_WF_NAVIGATION
- POWL services
  - POWL
  - POWL_COLLECTOR
  - powl_composite
  - POWL_EASY
  - POWL_ERRORPAGE
  - POWL_MASTER_QUERY
  - POWL_PERS_COMP

4 Configurations for One Exposure from Operations

4.1 Introduction

The One Exposure from Operations hub is a central storage location for operational data that is relevant for managing cash and liquidity. The provision of the data in the One Exposure from Operations hub facilitates funds planning and risk management across multiple companies. Currently, SAP Cash Management powered by SAP HANA uses One Exposure from Operations to acquire both data from the central system and remote systems that serve as subsystems of the central system. The integration is either real-time (one-system scenario) or periodic (side-by-side scenario with remote systems).

4.1.1 Integration with Source Applications in the Central System

The following source applications can be integrated for real-time update into One Exposure from Operations and the transaction data can be consumed by SAP Cash Management powered by SAP HANA and relevant apps of SAP Fiori for SAP Simple Finance, On-Premise Edition, and SAP Smart Business for SAP Simple Finance, On-Premise Edition:

- Treasury and Risk Management (TRM)
- Consumer and Mortgage Loans (FS-CML)
- Contract Accounts Receivable and Payable (FI-CA)

To set up the real-time integration of source applications, configure the following Customizing activities under *Financial Supply Chain Management* > *Cash and Liquidity Management* > *Cash Management* > *Data Setup*:

1. To activate source applications for company codes, configure either of the following two Customizing activities:
   - *Activate Individual Source Applications*: Activate a single source application for a company code
   - *Activate Multiple Source Applications*: Activate several source applications for one or more company codes
2. The upload of existing transaction data from the source applications is optional and can be performed as a mass upload using the Customizing activity *Load Transaction Data from Source Applications into One Exposure from Operations Hub*.

4.1.2 Integration with Remote Systems

Periodic integration of data into the One Exposure from Operations hub can be set up for:

- Bank account balances via Microsoft Excel upload
- Expected cash flows from classic SAP Cash Management imported via IDoc
- SAP Liquidity Planner actuals via Web Service

Bank Account Balance Uploads

In the **central system**, configure the following:

In the Web Dynpro application *Manage Bank Accounts*, maintain the connectivity path for bank accounts that exist in a remote system by defining a connectivity path with the ID category of *Remote System: G/L Account*.

Expected Cash Flows from Classic SAP Cash Management

In both the **central system and the remote systems**, configure the following:

Configure the following Customizing activities for using IDoc under *IDoc Interface / Application Link Enabling (ALE)* using transaction **SALE**:

- *Define Logical System*, under *Basic Settings* > *Logical Systems*
- *Create RFC Connections*, under *Basic Settings* > *Communication*
- *Generate Partner Profiles*, under *Modelling and Implementing Business Partners* > *Partner Profile*

In the **central system**, configure the following:

- Define the distribution model using message types `CMSEND` and `CMREQU` and distribute it to all the remote systems in Customizing activity *Maintain Distribution Model and Distribute Views*, under *IDoc Interface / Application Link Enabling (ALE)* > *Modelling and Implementing Business Partners*.
- In the Web Dynpro application *Manage Bank Accounts*, maintain the connectivity path for bank accounts that exist in a remote system by defining a connectivity path with the ID category of *Remote System: G/L Account*.
- In the SAP GUI application, configure the following Customizing activities to define how to convert company codes, planning groups, planning levels, and business areas from remote systems for use in the central system, under *Financial Supply Chain Management* > *Cash and Liquidity Management* > *Cash Management* > *Data Setup* > *Inbound Mapping for Integration of Remote Data into One Exposure*:
  - *Assign Company Codes*
  - *Convert Sender Planning Groups*
  - *Convert Sender Planning Levels*
  - *Convert Sender Business Areas*
- Flow types are derived by a default logic, but an additional differentiation for **confirmed cash** can be configured with Customizing activity *Assign Flow Types to Planning Levels* under *Financial Supply Chain Management* > *Cash and Liquidity Management* > *Cash Management* > *Flow Types*.

- To define the liquidity item derivation rules, configure queries and query services as described in Liquidity Items and Liquidity Item Hierarchies [page 26].

SAP Liquidity Planner Actuals

To enable the Web service, the **system administrator** configures the following in *SOA Management* (transaction **SOAMANAGER**):

- In the central system, configure a Web service based on the service definition `FQM_WS_DISTRIBUTE`.
- In the remote systems, define a logical port for each remote system based on the consumer proxy `CO_FQM_WS_DISTRIBUTE`.

To enable the data transfer and conversion, the **application consultant** configures the following:

- In the central system, configure the following activities to define how to convert company codes and business areas from remote systems for the use in the central system, under *Financial Supply Chain Management* > *Cash and Liquidity Management* > *Cash Management* > *Data Setup* > *Inbound Mapping for Integration of Remote Data into One Exposure*:
  - *Assign Company Codes*
  - *Convert Sender Business Areas*
- In the remote systems, configure the following:
  - Define source applications, company codes, and payment dates (optional) to control data transfers into the One Exposure from Operations hub in Customizing activity *Activate Source Application Liquidity Planner for One Exposure Transfer* under *Financial Supply Chain Management* > *Cash and Liquidity Management* > *Liquidity Planner* > *Tools*.
  - If you have additional mapping requirements, you also have the option of using the BAdI `BADI_FQM_FLOW_ADJUST_CORE`. The BAdI includes a sample implementation.
- Make sure you have liquidity items defined in both the central system and the remote systems. For more information, see Liquidity Items and Liquidity Item Hierarchies [page 26].

5 Configurations for Cash Operations

5.1 Introduction

> **Note**
>
> You only need to perform the following activities if you want to use Cash Operations apps of SAP Fiori for SAP Simple Finance, On-Premise Edition, and SAP Smart Business for SAP Simple Finance, On-Premise Edition.

This activity is to set up transactional data that will be consumed by Cash Management applications. Applications in SAP Cash Management powered by SAP HANA consumes data from the following sources:

- Imported bank statements (database tables FEB*) for balances on the bank side
- Accounting document line items (database table BSEG) for cash flows booked in the system
- Memo records (database table FDES)
- One Exposure from Operations (database table FQM_FLOW) for data from other components like Financial Operations, TRM, CML, FI-CA, and integrated data from remote systems.

To use SAP Cash Management powered by SAP HANA, make the following configurations:

- Source Applications
  Source applications represents the information sources are relevant for Cash Management. Only activated source applications will be taken into account.
- Flow types
  With built-in semantics, flow types classify information from different source components or different steps in the cash flow lifecycle from forecast to actual.
- Liquidity items
  Liquidity items represent the use and purpose of the cash flow. Typically with liquidity items and the defined hierarchical structures, cash flows can be classified into different categories and sub-categories in a hierarchical view, for example, cash flows for operations, cash flows for financing, and cash flows for investment.
- Planning levels and planning groups
  Planning levels and planning groups help customers to filter and categorize cash data for different reporting and analytical purposes. The two attributes enable the integration between Cash Management and other components.
- House banks and house bank accounts
  House bank accounts specify the bank accounts used or to be used for payments.
- One Exposure from Operations
  To consume data from the One Exposure from Operations hub, configure the integration as described in Configurations for One Exposure from Operations [page 18].

Before you migrate cash management data, make sure you have properly configured the following settings under *Financial Supply Chain Management* > *Cash and Liquidity Management* > *Cash Management*:

5.1.1 Source Applications

For company codes that are going to use Cash Management related functions, you need to determine which information sources are relevant for Cash Management for each company code. To do so, activate source applications for company codes using either of the following two activities under *Cash Management* > *Data Setup*:

- *Activate Individual Source Applications*: Activate a single source application for a company code
- *Activate Multiple Source Applications*: Activate several source applications for one or more company codes

You may need to activate the following source applications

- To build key information in accounting documents, activate source application *One Exposure*.
- To use data of a particular category stored in the One Exposure from Operations hub, activate the corresponding source application according to your business needs.
  For more information, see Configurations for One Exposure from Operations [page 18].
  - Financial Operations
  - TRM Treasury and Risk Management
  - CML Customer and Mortgage Loans
  - FICA Contract Accounts Receivable and Payable
  - MM Materials Management
  - SD Sales and Distribution

5.1.2 Flow Types

Definition

Flow types classify the lifecycle of cash flows, for example, it distinguishes forecasted cash flows from confirmed cash flows. Only transaction data that is assigned with flow type information can be consumed and used in Cash Management applications.

SAP predefines a set of flow types. If you do not have special requirements, you can rely on the standard flow types delivered by SAP.

Derive Flow Types for Accounting Documents

Flow types in database table `BSEG` are derived from G/L account values in accounting document line items. The derivation logic for deriving flow types in the following G/L accounts are predefined by SAP. As a prerequisite, make sure you have properly defined the G/L accounts according to your business needs.

- G/L accounts representing bank accounts are associated with cash flows that have been confirmed by banks.
  You define this type of G/L accounts in the Web Dynpro application *Bank Account Management* > *Manage Bank Accounts*, by entering the G/L account number in the *House Bank Account Data* section on the *Connectivity Path* tab.
- G/L accounts representing clearing accounts for payment requests are associated with payment requests that are ready for payment run (transaction **F111**).
  You define payment request clearing accounts in either of the following Customizing activities:
  - *Define Clearing Account for Payment Requests*, under *Financial Supply Chain Management* > *Treasury and Risk Management* > *Transaction Manager* > *General Settings* > *Payment Management* > *Payment Requests*
  - *Define Clearing Accounts for Cross-Country Bank Account Transfers*, under *Financial Accounting (New)* > *Bank Accounting* > *Business Transactions* > *Payment Transactions* > *Payment Request*.
- G/L accounts representing bank clearing accounts are associated with payments made in the system but not yet confirmed by banks.
  Define bank clearing accounts determination logic in either of the following Customizing activities:
  - *Financial Accounting (new)* > *Accounts Receivable and Accounts Payable* > *Business Transactions* > *Outgoing Payments* > *Automatic Outgoing Payments* > *Payment Method / Bank Selection for Payment Program* > *Set Up Bank Determination for Payment Transactions*.
  - *Financial Accounting (new)* > *Accounts Receivable and Accounts Payable* > *Business Transactions* > *Incoming Payments* > *Automatic Incoming Payments* > *Payment Method / Bank Selection for Payment Program* > *Set Up Bank Determination for Payment Transactions*.
- G/L accounts representing tax accounts are associated with forecasted tax payments.
  You define tax accounts for account payable and receivable in Customizing activity *Define Tax Accounts*, under *Financial Accounting (new)* > *Financial Accounting Global Settings (New)* > *Tax on Sales/Purchases* > *Posting*.
- G/L accounts representing vendor accounts (reconciliation accounts) are identified through the account type of *K – Vendors* in the corresponding accounting documents.
- G/L accounts representing customer accounts (reconciliation accounts) are identified through the account type of *D – Customers* in the corresponding accounting documents.

Flow Type Assignment for Accounting Documents

All accounting document items that are associated with a G/L account classified as bank account, bank clearing account, payment request clearing account, vendor account, customer account, or tax account, are assigned with a flow type based on the debit/credit indicator (table `BSEG-SHKZG`) as the table below by predefined logic. The table below shows the default assignment.

Table 5:

Account classified as	Debit/credit indicator	Flow Type
Bank	S	900000 - Incoming Bank Cash
	H	900001 - Outgoing Bank Cash

Account classified as	Debit/credit indicator	Flow Type
Bank Clearing	S	800004 - Incoming Cash in Transit (Bank Init.)
	H	800003 - Outgoing Cash in Transit (Bank Init.)
Payment Request Clearing	S	700000 - Incoming Payment Request
	H	700001 - Outgoing Payment Request
Supplier	S	600001 - Regular Payables Increase
	H	600010 - Regular Payables Decrease
Customer	S	600000 - Regular Receivables Increase
	H	600011 - Regular Receivable Decrease
Tax (output tax; BSEG-MWART = 'A')	S	300010 - Output Tax Decrease
	H	300001 - Output Tax Increase
Tax (input tax; BSEG-MWART = 'V')	S	300000 - Input Tax Increase
	H	300011 - Input Tax Decrease

If the default derivation logic is sufficient for you, no extra configuration is required. However, if you want to overrule the assignment below or assign flow types to additional G/L accounts, you can do so in Customizing activity *Assign Flow Types to G/L Accounts*, under *Financial Supply Chain Management* > *Cash and Liquidity Management* > *Cash Management* > *Flow Types*.

Example

You need additional bank clearing accounts for bank transfers.

To do so, configure your clearing accounts in Customizing activity *Define Clearing Accts for Receiving Bank for Acct.Transfer*, under *Financial Accounting (new)* > *Bank Accounting* > *Business Transactions* > *Payment Transactions* > *Payment Request*.

The system does not assign default flow types to these bank clearing accounts, therefore you need to define them in Customizing activity *Assign Flow Types to G/L Accounts*, under *Financial Supply Chain Management* > *Cash and Liquidity Management* > *Cash Management* > *Flow Types*.

Flow Types Assignment for Forecasted Cash in One Exposure from Operations

The flow types for forecasted cash in the One Exposure from Operations hub (database table `FQM_FLOW`) are derived according to fixed logic in the program. The table below lists the default assignment.

If the default derivation logic is sufficient for you, no extra configuration is required. However, if in addition you want to differentiate confirmed cash for cash flows coming from classic Cash Management, you can assign flow types 900108 and 900109 in the Customizing activity *Assign Flow Types to G/L Accounts*, under *Financial Supply Chain Management* > *Cash and Liquidity Management* > *Cash Management* > *Flow Types*. For example, you can use:

- Flow type 900108 and 900109 to differentiate confirmed cash for cash flows coming from classic Cash Management.
- Flow type 800006, 800008, 900006, and 900008 for financial operations.

Table 6:

Data in One Exposure from Operations	Increasing/decreasing	Flow Type
Financial Operations (Invoices)	Increasing	900900 - Incoming Cash from Invoices
	Decreasing	900901 - Outgoing Cash from Invoices
Financial Operations (Payments)	Increasing	900902 - Incoming Cash from Payments
	Decreasing	900903 - Outgoing Cash from Payments
Financial Operations (Bank Statements)	Increasing	900910 - Incoming Cash from Bank Statements
	Decreasing	900911 - Outgoing Cash from Bank Statements
Treasury and Risk Management (TRM)	Increasing	900100 - Incoming Bank Cash (TRM)
	Decreasing	900101 - Outgoing Bank Cash (TRM)
Loans Management (FS-CML)	Increasing	900104 - Incoming Bank Cash (CML)
	Decreasing	900105 - Outgoing Bank Cash (CML)
Contract Accounts Receivable and Payable (FI-CA)	Increasing	900106 - Incoming Cash (FI-CA)
	Decreasing	900107 - Outgoing Cash (FI-CA)
Expected cash flows from classic Cash Management via IDoc	Increasing	900110 - Incoming Cash (IDoc)
	Decreasing	900111 - Outgoing Cash (IDoc)
Liquidity Planner actuals from remote system via Web service	Increasing	900112 - Incoming Cash (LP)
	Decreasing	900113 - Outgoing Cash (LP)
Bank account balances via Excel upload	Increasing	900102 - Bank Cash Balance Increase
	Decreasing	900103 - Bank Cash Balance Decrease

5.1.3 Liquidity Items and Liquidity Item Hierarchies

Liquidity items represent the source and use of cash flows in your company. It serves as an import dimension for financial planning and reporting in SAP Cash Management powered by SAP HANA. Configure the following under *Financial Supply Chain Management* > *Cash and Liquidity Management* > *Cash Management* > *Liquidity Items*.

Define Liquidity Items and Liquidity Item Hierarchies

- To define liquidity items, use the *Edit Liquidity Items* activity.
- To group liquidity items into hierarchical structures, define hierarchies using the *Define Liquidity Item Hierarchies* activity.
  The hierarchies defined here can be used by Cash Management applications to display cash flows in categories and sub-categories in a hierarchical view.

Derive Liquidity Items for Accounting Documents

- For accounting documents (in database table BSEG), if liquidity items can be determined by G/L accounts, you may use the *Define Default Liquidity Items for G/L Accounts* activity to define the derivation rules.
- If you need more complex logic to derive liquidity items from various fields of the accounting document, then you need to define queries and query sequences using the following activities:
  - *Define Queries for Liquidity Item Derivation*
  - *Define Query Sequences*
  - *Assign Queries to Query Sequences*
    You should always specify the *Origin* as **C** or **D** when defining queries and query sequences for accounting documents:
    - Origin C applies to line items with account type (BSEG-KOART) of D (customer) or K (vendor).
    - Origin D applies to line items with account types (BSEG-KOART) other than D (customer) or K (vendor).

    When deriving liquidity items, the system first tries to apply the assigned query sequences; if not successful, then it turns to the default liquidity items defined for G/L accounts.

Derive Liquidity Items for Source Application Data in One Exposure from Operations

For data integrated into the One Exposure from Operations hub from source applications in the central system, such as TRM, CML, or FI-CA data, there is no default derivation rules for liquidity items. You need to define query and query sequences for this purpose. In this case, you should always specify the *Origin* as **X**, meaning that the derivation logic is executed against the structure of the One Exposure from Operations hub.

For more information on how to configure the One Exposure from Operations hub to extract data from source applications in the central system, see Integration with Source Applications in the Central System [page 18].

Derive Liquidity Items for Remotely Integrated Data in One Exposure from Operations

Data integrated from remote systems falls into the following types:

- Classic Cash Management data from remote systems: Define queries and query sequences with the *Origin* as **X**.
- Liquidity Planner actuals: The original liquidity item values in the source data are transferred into the One Exposure from Operations hub. Therefore it has to be assured that the liquidity items exist in both systems (remote and central). For this purpose you can use the Customizing activity *Import and Export of Liquidity Items* to create liquidity items massively in different systems, under *Financial Supply Chain Management* > *Cash and Liquidity Management* > *Cash Management* > *Tools*.

For more information on how to configure the One Exposure from Operations hub to integrate with data from remote systems, see Integration with Remote Systems [page 19].

5.1.4 Planning Levels and Planning Groups

The planning level reflects typical financial transactions, for example, posting to a bank account, posting to a clearing account, confirmed or unconfirmed payment notes, and so on. It explains the origin of the data and thus enables you to better estimate its reliability. A planning group represents a group of customers or vendors with particular characteristics, behaviors or risks. With this attribute, you can break down incoming and outgoing payments according to the amount, the probability of the cash inflow or outflow, and the type of business relationship.

Before you use SAP Cash Management powered by SAP HANA, configure planning levels and planning groups under *Financial Supply Chain Management* > *Cash and Liquidity Management* > *Cash Management* > *Planning Levels and Planning Groups*.

Note the following:

- To populate key information for cash management in accounting entries for G/L line items, assign planning levels to relevant G/L accounts, for example bank accounts, bank clearing accounts, payment request accounts.
- To populate key information for cash management in accounting entries for vendor and customer line items, in customer and vendor master records, specify the planning group information.

5.1.5 Field Status

By default, house bank and house bank account are optional fields in payments and bank statements. To ensure the information is recorded for relevant transactions, you may consider to set the two fields as mandatory for G/L

accounts that work as bank clearing accounts and bank accounts by using the Customizing activity *Define Field Status Variants*, under *Financial Accounting (New)* > *Accounts Receivable and Accounts Payable* > *Business Transactions* > *Incoming Payments* > *Incoming Payments Global Settings* > *Make and Check Document Settings*.

6 Configurations for Liquidity Management

6.1 Introduction

> **Note**
>
> You only need to perform the following activities if you want to use the following Liquidity Management apps of SAP Fiori for SAP Simple Finance, On-Premise Edition, and SAP Smart Business for SAP Simple Finance, On-Premise Edition.
>
> - *Develop Liquidity Plans*
> - *Liquidity Plans*
> - *Cash Flow - Detailed Analysis*
> - *Liquidity Forecast*
> - *Cash Flow Analysis*

6.2 Settings in the Back-End Server

6.2.1 BI Content

6.2.1.1 Activation of BI Content Bundle

BI Content bundles contain BW Queries, Operational Data Providers (ODPs), and other BI Content objects. The concept of BI Content bundles simplifies the activation of all required objects so there is no need to perform the more cumbersome procedure of collecting and activating objects individually.

Activate the BI Content bundle `FIN_CLM_PLANNING` (Liquidity Planning) using the *BI Content Activation Workbench* (transaction **BSANLY_BI_ACTIVATION**).

On the activation screen, specify the RFC connection for your BI client (if the BI client is the current client, you can specify RFC destination *NONE*), set *Treatment of Already Active Content Objects* flag to *Copy*, and activate the flag *Install all Collected Objects*. Check the activation log to verify there are no errors.

> **Note**
>
> If the BI bundle cannot be activated successfully, you need to activate all the BI contents collected in the bundle manually using transaction **RSOR**. To display the BI contents contained in the bundle, choose the *Show Detail* button.

> **Note**
>
> You can activate other options later on even if you have changed the content delivered by SAP by selecting the checkbox. For content objects delivered by SAP, you are asked if you want to merge the new content version with the active object. Deselect *Install all Collected Objects* if you only want to activate the new SAP-delivered objects. Automatic choices between *Match* and *Copy* depend on the object type (for more information, see flag `MERGEFL` in table `RSTLOGOPROP`). You must activate the BI Content in each system (development, test, and production) separately. It is part of the system setup, not part of application customizing.

6.2.1.2 Activate Additional BI Content Objects

Proceed as follows:

1. In transaction **RSOR**, choose *Object Types* on the left panel.
2. On the middle panel, find an object type of the BI Content objects listed in the table below.
3. Choose *Select Objects*.
4. In the dialog box, select the objects to be activated.
5. Choose *Transfer Selections*.
6. On the right panel, select *Dataflow Before and Afterwards* in the *Grouping* menu.
7. Select all the objects.
8. Choose *Install* to start the content installation.

Table 7:

Object Type	Object Type Technical Name	Object Description	Object Technical Name
Query	`ELEM.REP`	Cash Flow - Detailed Analysis	`FCLM_CFA_VP01_Q0001`
BPC Unified Environment	`ENVM`	Liquidity Plans Environment	`0FCLM_LP_ENV`
BPC Model	`MODL`	Liquidity Plans Model	`0FCLM_LP_ENV` `FCLM_LP_MODEL`
BPC BPF	`BBPF`	Develop Liquidity Plans (Design Studio)	`0FCLM_LP_ENV` `FCLM_LP_PROCESS`

BPC Workspace	`WKSP`		`0FCLM_LP_ENV/Root`
			`0FCLM_LP_ENV/Public`
			`0FCLM_LP_ENV/Teams`

6.2.2 Planning Units and Planning Unit Hierarchy

To configure the planning units and planning unit hierarchy, configure the following Customizing activities under *Financial Supply Chain Management* > *Cash and Liquidity Management* > *Cash Management* > *Liquidity Planning*:

1. Create planning units
   In Customizing activity *Maintain Planning Unit Settings*, do the following:
   - Create planning units to be used in liquidity planning. Planning units are organizational units that need to enter liquidity plan data. Each planning unit corresponds to one company code.
   - Define planning currencies for planning units
     You can define one or more planning currencies for each planning unit.
2. Maintain the planning unit hierarchy
   1. Start BW modeling using transaction code **RSA1**.
   2. Locate the info object `/ERP/ORG_UNIT` under *Modeling* > *InfoObjects* > *Financial Management & Controlling* > *Cash & Liquidity Management* > *Characteristics*, and then double click it.
   3. On the *Hierarchy* tab, choose the *Maintain Hierarchy* button.
   4. Create a new hierarchy by specify the name and description.
   5. Add nodes to the hierarchy by using the *Planning Unit* button.
   6. Define a leaf planning unit named as **Head Quarter** with key **1**.
      It will be used for currency conversion. Please note that all the subsidiary planning units can only do currency exchange with the headquarter.
   7. Choose the *Hierarchy Attributes* button and then select the *Do Not Display Leaves for Inner-Nodes in the Query* and *Suppress 'Unassigned' Node* checkbox.
   8. Check planners and reviewers of planning units
      In Customizing activity *Maintain Planning Unit Settings*, do the following:
      After the planning unit hierarchy has been defined in previous step, check the *Planner* and *Reviewer* of each planning unit to make sure that the *Reviewer* of the subsidiary planning unit is consistent with the *Planner* of the parent planning unit. Otherwise, the status of BPC cannot be modified as expected.
   9. Activate planning unit hierarchy
      In Customizing activity *Activate Planning Unit Hierarchy*, activate a planning unit hierarchy to be used for all liquidity planning activities.

6.2.3 Reference Data Sources

To define reference data sources that can be used to classify the source of suggested values, use the Customizing activity *Define Reference Data Sources*, under *Financial Supply Chain Management* > *Cash and Liquidity Management* > *Cash Management* > *Liquidity Planning*.

Key 001 to 004 are from SAP standard delivery. You can define your own reference data sources if extension is needed.

6.2.4 Liquidity Planning Types

The planning type is used to classify the different kind of planning data. SAP provides two predefined planning types, monthly rolling plan and non-rolling plan. You can define your own planning types if necessary, using the Customizing activity *Define Liquidity Planning Types*, under *Financial Supply Chain Management* > *Cash and Liquidity Management* > *Liquidity Planning*.

With SAP standard solution, users can only develop monthly rolling plans. For non-rolling plans or other kinds of plans, users can develop extensions as needed.

6.2.5 Liquidity Items and Liquidity Item Hierarchies

6.2.5.1 Liquidity Items

- When creating liquidity items using the activity *Edit Liquidity Items*, under *Financial Supply Chain Management* > *Cash and Liquidity Management* > *Cash Management* > *Liquidity Items*, note the following:
  - If you want to integrate with cash position to get bank balance data, define a liquidity item with the key as **LP_CASHOP**.
  - If you want to integrate with Treasury and Risk Management (TRM) to identify the opening balance for deposits, such as fixed-term deposits, deposits at notice, define a liquidity item with the key as **LP_DPOP**.
  - If you want to use the currency exchange function, define the following two liquidity items:
    - **LP_EXF**: Cash planned to be converted from another currency
    - **LP_EXI**: Cash planned to be converted to another currency
  - Liquidity items can be defined to represent cash flows or balance values. In liquidity planning, to distinguish the two types of liquidity items, you must use the Customizing activity *Exclude Liquidity Items Representing Balance Values*, under *Financial Supply Chain Management* > *Cash and Liquidity Management* > *Liquidity Planning*, to register all the liquidity items defined in the system that represent balance values.

6.2.5.2 Liquidity Item Hierarchy

With the Customizing activity *Define Liquidity Item Hierarchies*, under *Financial Supply Chain Management* > *Cash and Liquidity Management* > *Cash Management* > *Liquidity Items*, you can maintain the liquidity item hierarchies to be used in liquidity planning.

The current closing balance calculation logic is based on the sample liquidity item hierarchy, therefore if you would like to customize the liquidity item and liquidity item hierarchy, you need to customize the closing balance calculation backend logic as well. The way to do the backend calculation customizing follows the standard BW logic.

6.2.5.3 Derivation Rules for Liquidity Items

To define how liquidity items can be derived for forecast data and actual data, configure the rules for liquidity item derivation using the following Customizing activities under *Financial Supply Chain Management* > *Cash and Liquidity Management* > *Cash Management* > *Liquidity Items* > *Derivation Rules for Liquidity Items*:

- Create a query sequence for a new origin (transaction code **FLQC15**)
- Create queries to be linked to the query sequence (transaction code **FLQQA1**)
- Assign queries to the query sequence (transaction code **FLQQA5**)
- Define default liquidity item derivation for company codes (transaction code **FLQC0**)

6.2.6 Currency Conversion Rules

To mitigate the risks of possible exchange rate fluctuations, the headquarter cash managers need to know the overall foreign currency composition and be able to conduct hedging activities when necessary.

To enable the currency exchange between the headquarter and subsidiaries, you must first define the rules for currency conversion using Customizing activity *Currency Conversion Rules*, under *Financial Supply Chain Management* > *Cash and Liquidity Management* > *Cash Management* > *Liquidity Planning*.

- Currently, all the subsidiary planning units can only make currency exchanges with the headquarter. Therefore, use **1** for target planning unit for the new rule, otherwise currency conversion will not work.
- Make sure your settings follow the principles below:
  - A *Source Currency* is one of the planning currencies defined for the *Source Planning Unit*.
  - A *Target Currency* is one of the planning currencies defined for the *Target Planning Unit*.
- You can configure the planning currencies for planning units in Customizing activity *Maintain Planning Unit Settings*.

6.2.7 ICF Services

Activate the ICF services listed in the table below as follows:

1. In transaction **SICF**, enter a service path and then choose *Execute*.
2. Right click on the service and choose *Activate Service*.

Table 8:

ICF Service Description	Service Path
BPC Universal Web Client	`/sap/bc/ui5_ui5/sap/bpcwebclient`
Client Service (Persistence, User Preference, etc.)	`/sap/bw/cs`
BW: Get Response	`/sap/bw/ina/GetResponse`

ICF Service Description	Service Path
BW InA	/sap/bw/ina
MIME in Web Reporting	/sap/bw/Mime
Enterprise Search InA Adapter	/sap/es/ina

6.2.8 Business Planning and Consolidation

6.2.8.1 Introduction

SAP Business Planning and Consolidation, version for SAP NetWeaver is required for using the following apps:

- *Develop Liquidity Plans*
- *Liquidity Plans*

For information on how to install this application, see the Installation Guide at http://help.sap.com/bopac.

For information on the required authorization for configuring and using this application, see the Security Guide at http://help.sap.com/bopac.

After the application is installed, perform the following configuration activities:

6.2.8.1.1 Enable BPC Embedded Model and Deep HANA Integration

Proceed as follows:

1. Run transaction **SM30**.
2. Specify the `RSPLS_HDB_ACT` table view.
3. Add and activate the parameter BPC Embedded Model `BPC_ACT: BPC-PAK` and HANA Integration `HANA_ACT`.

6.2.8.1.2 Customize BPC Templates

If you want to enhance or modify the predefined BPF template, proceed as follows:

1. Start BPC work center with the URL `https://[host]:[port]/sap/bc/ui5_ui5/sap/bpcwebclient/index.html?sap-language=[language]&sap-client=[client]#cm=0FCLM_LP_ENV;connType=pak`.

   > **Note**
   >
   > Replace the [host], [port], [client] and [language] with the parameters in your own system.

2. Go to the *ADMINISTRATION* tab and choose *Process Templates*.
3. Select the BPF template `FCLM_LP_PROCESS`, and then choose the *New Version* button.
4. On the *Process Settings* tab, select a valid user for the field *Process Monitors*.
5. In the *Activities* panel, under the section *Driving Dimension*, select the *All Members for the Selected Hierarchy* for the *Members* field.
6. Select the planning unit hierarchy you have activated in Customizing activity *Activate Planning Unit Hierarchy* and then choose *OK*.
   The hierarchy must be an active one. For more information on how to activate a planning unit hierarchy, see Planning Units and Planning Unit Hierarchy [page 31].
7. Choose *Save* and then *Back*.
8. Choose *Validate* and then *Deploy* to activate the modified template.

6.2.8.1.3 Customize the BPC Work Status

If you want to enhance or modify the predefined BPF templates, proceed as follows:

1. Start BPC Workcenter with the following URL pattern by replacing the parameters between the braces: `https://[host]:[port]/sap/bc/ui5_ui5/sap/bpcwebclient/index.html?sap-language=[language]&sap-client=[client]#cm=0FCLM_LP_ENV;connType=pak`.
2. Go to the *ADMINISTRATION* tab and then choose *Work Status Configuration*.
3. Select the model `FCLM_LP_MODEL`.
4. Change *Hierarchy* in the *Locking Dimensions* section into the planning unit hierarchy activated in Customizing activity *Activate Planning Unit Hierarchy* .
5. Select the *Enable Work Status* check box and then save the settings.

6.2.8.1.4 BPC Configuration Set

To activate a BPC configuration set, you can do so in Customizing activity *Specify a BPC Configuration Set*, under *Financial Supply Chain Management* > *Cash and Liquidity Management* > *Liquidity Planning*.

By default, the standard BPC configuration set provided by SAP is activated for Liquidity Planning. If you want to use your own configuration set, add the configuration set and make sure only one configuration set is activated for Liquidity Planning.

6.2.9 Navigation from BPC to Design Studio Reports

1. Create the Launchpads navigating to Design Studio reports as the example table below, using transaction `LPD_CUST`.
   Example Table 1: Launchpads

Table 9:

Role	Instance	Description	Link Text	Application Type	URL	Application Alias
FCLM_LP	FCLM_LP_DS_NAVI	Launch Develop Liquidity Plans	Launch Develop Liquidity Plans - Input	URL	https://[host]:[port]/sap/bc/ui5_ui5/ui2/ushell/shells/abap/FioriLaunchpad.html?sap-language=[language]&sap-client=[client]#BankAccount-inputPlan	DS_INPUT
FCLM_LP	FCLM_LP_DS_NAVI	Launch Develop Liquidity Plans	Launch Develop Liquidity Plans - Review	URL	https://[host]:[port]/sap/bc/ui5_ui5/ui2/ushell/shells/abap/FioriLaunchpad.html?sap-language=[language]&sap-client=[client]#BankAccount-reviewPlan	DS_REVIEW

1. Call up transaction LPD_CUST.
2. Click the *New Launchpad* button, and specify the *Role*, *Instance* and *Description* in the dialog box. You can refer to the examples in the table above.
3. Click the *New Application* button and specify the *Link Text*, *Application Type*, *URL*, and *Application Alias* to create two applications listed in the table.
4. Save the settings.

2. Create the navigation parameter
   1. Call up transaction SE38 run program RSBPCB_MAINTAIN_SEM_OBJ.
   2. Register the launchpad Role and the Instance, which are maintained in the step of creating launchpads, as semantic objects. Save the settings.
      Example Table 2: Semantic Objects

Table 10:

Role	Instance
FCLM_LP	FCLM_LP_DS_NAVI

3. Select the newly-created semantic object and click the *Edit* button to maintain the semantic object links. Add the two Application Alias to the semantic object, which are maintained in the step of creating launchpads. Select the *For Fiori* check-box. Save the settings.
Example Table 3: Semantic Object Links

Table 11:

Role	Instance	Alias	For Fiori
FCLM_LP	FCLM_LP_DS_NAVI	DS_INPUT	X
FCLM_LP	FCLM_LP_DS_NAVI	DS_REVIEW	X

4. Select the newly-created semantic object link and click the *Edit* button to maintain the same link parameters below for both of the semantic object links. Save the settings.
Table 4: Link Parameters

Table 12:

Parameter	Reference	Reference Value	Parameter Description
X_LQHIER	INFOOBJECT	/ERP/LQH_NAME	Liquidity Item Hierarchy
X_VERSION	INFOOBJECT	/ERP/VMONTH	Planning Cycle
X_ORG_UNIT	INFOOBJECT	/ERP/ORG_UNIT	Planning Unit

3. Modify activity configuration in the BPF template:
    1. Start BPC work center with the URL `https://[host]:[port]/sap/bc/ui5_ui5/sap/bpcwebclient/index.html?sap-language=[language]&sap-client=[client]#cm=0FCLM_LP_ENV;connType=pak`.
    2. Go to the *ADMINISTRATION* tab and choose *Process Templates*.
    3. Select the BPF template `FCLM_LP_PROCESS`, and then click the *New Version* button.
    4. On the *Activities* panel, under the *Activity Performer* section, choose *Edit* in the *Workspace* field.
    5. In the *Target Action* section, choose *External Resources*, and *Open External Web-based Application*.
    6. In the *Web-based Application* section, select the *Application* for launching the report of entering liquidity plans (Launch Develop Liquidity Plans - Input in **Example Table 1: Launchpads**).
    7. In the *Web-based Application* section, for the *Liquidity Item Hierarchy* parameter, select the member you maintained in Customizing activity *Define Liquidity Item Hierarchies* which refers to the liquidity item hierarchy template. The template for liquidity item hierarchy can be found in 2145500. For the *Planning Cycle* and *Planning Unit* parameter, choose the *Use Workspace Context* section.
    8. Back to the *Activities* panel, choose *Edit* in the *Workspace* field under the *Activity Reviewer* section.
    9. In the *Target Action* section, choose *External Resources*, and *Open External Web-based Application*.
    10. In the *Web-based Application* section, select the *Application* for launching the report of reviewing Liquidity Plans (Launch Develop Liquidity Plans - Review in **Example Table 1: Launchpads**) .

11. In the *Web-based Application* section, for the *Liquidity Item Hierarchy* parameter, select the member you maintained in Customizing activity *Define Liquidity Item Hierarchies* which refers to the liquidity item hierarchy template. For *Planning Cycle* and *Planning Unit* parameter, choose *Use Workspace Context*.
12. *Save*, *Validate* and *Deploy* the template.

6.3 Settings in the Front-End Server

6.3.1 ICF Servies

Activate the ICF services listed in the table below as follows:

1. In transaction **SICF**, enter a service path and then choose *Execute*.
2. Right click on the service and choose *Activate Service*.

Table 13:

ICF Service Description	Service Path
Analyze Design Studio Query	`/sap/bc/ui5_ui5/sap/fin_ds_analyze`
Unified Shell	`/sap/bc/ui5_ui5/ui2/ushell`

6.3.2 Launchpad Access for Develop Liquidity Plans

For the app *Develop Liquidity Plans*, additional configurations should be conducted to enable the tile navigation to BPC.

The following three tiles are delivered along with the role `SAP_BR_CASH_MANAGER` for the app *Develop Liquidity Plans*.

- Start New Planning Cycle (binding target mapping `BankAccount-createCycle`)
- Enter Liquidity Plans (binding target mapping `BankAccount-inbox`)
- Review Liquidity Plans (binding target mapping `BankAccount-inbox`)

However, the corresponding target mappings for the three tiles are not delivered and thus need to be configured in the Fiori Launchpad Designer by customers themselves. If the corresponding target mappings are not configured, the tiles cannot be found on the Fiori Launchpad. Before creating the target mappings, two Launchpads need to be created by transaction `LPD_CUST` to launch BPC.

For more information about launchpad and target mapping configurations (Transaction `LPD_CUST`), you can refer to the following tables:

Configuration of Launchpads:

Table 14:

Role	Instance	Application Alias	Application Type	URL
FCLM_BPC	FCLM_BPC_CI	BPC_CI	URL	https://[host]:[port]/sap/bc/ui5_ui5/sap/bpcwebclient/index.html?sap-language=[language]&sap-client=[client]#cm=0FCLM_LP_ENV;connType=pak;VIEW_ID=admin-composite-container/admin-bpf-process_instances **Note** Replace the [host], [port], [client] and [language] with your own system parameters.
FCLM_BPC	FCLM_BPC_INBOX	BPC_INBOX	URL	https://[host]:[port]/sap/bc/ui5_ui5/sap/bpcwebclient/index.html?sap-language=[language]&sap-client=[client]#cm=0FCLM_LP_ENV;connType=pak

Configuration of Target Mappings:

Table 15:

Semantic Object	Action	Navigation Type	Launchpad Role	Launchpad Instance	Application Alias	Desktop
BankAccount	createCycle	SAP Fiori App using LPD_CUST	FCLM_BPC	FCLM_BPC_CI	BPC_CI	Yes
BankAccount	inbox	SAP Fiori App using LPD_CUST	FCLM_BPC	FCLM_BPC_INBOX	BPC_INBOX	Yes

Configuration Steps

For more details, see the configuration steps below:

1. Create Launchpads
    1. Go to transaction LPD_CUST.
    2. Choose the *New Launchpad* button and specify the *Role* and *Instance* in the dialog box as listed in the table of Configuration of Launchpad. These two fields will be used when you create the target mapping. The description can be maintained up to customers.
    3. Click the *New Application*.
    4. Fill the following content according to the table of Configuration of Launchpads:
        - Link Text (You can define the text by yourself)
        - Application Type
        - URL
        - Application Alias
    5. Save the settings.
2. Create Fiori Catalog
    1. Open the Fiori Launchpad Designer
    2. Create a standard customizing catalog and fill the *Title* and the *ID*. The customizing catalog is to contain the customizing target mappings.
    3. Save the settings.
3. Create Target Mappings.
    1. In the customizing catalog, go to the *Target Mapping* panel and choose *Create Target Mapping*.
    2. Configure the target mapping as listed in table of Configuration of Target Mappings. Launchpad Role, Launchpad Instance and Application Alias are bound to the target mapping. When you open the tile, BPC will be launched.
    3. Save the settings.
4. Bind Catalog to Role
    1. Create a customizing role or opening an existing role via transaction PFCG.
    2. Add Transaction SAP Fiori Tile Catalog.
    3. Bind the customizing Catalog to the role. *Catalog Provider* should be X-SAP-UI2-CATALOGPAGE.
    4. Assign the customizing role to users.

7 Configuration Tips for SAP Liquidity Planner Customers

The following should be considered if you migrate from the classic SAP Liquidity Planner to the new SAP Cash Management powered by SAP HANA:

- From actual/info accounts to flow types
  The classic SAP Liquidity Planner distinguishes actual accounts from info accounts. Actual accounts are G/L accounts that reflect actual incoming or outgoing payments.
  In SAP Cash Management powered by SAP HANA, the concept of flow types was introduced. The flow types classify the lifecycle of cash flows and only data assigned with flow type information can be consumed and used in cash management applications. To use SAP Cash Management powered by SAP HANA, it is important to understand the new flow type concept and available configuration options before you adapt your original account settings to flow type assignment. For more information, see Flow Types [page 22].
- Liquidity items and Liquidity Item Hierarchies
  - In SAP Cash Management powered by SAP HANA, the Customizing activity *Edit Liquidity Items* has been enhanced with a new attribute *Cash Flow Direction*. After the migration, you must specify a cash flow direction for each of the liquidity items.
    For more information, see Liquidity Items and Liquidity Item Hierarchies [page 26].
  - Liquidity Item Hierarchy
    The Customizing activity *Liquidity Item Hierarchies* is a mandatory customizing activity in SAP Cash Management powered by SAP HANA. It allows you to group liquidity items into different hierarchical structures for various business uses.
    You must set up this Customizing activity if you haven't done so in classic SAP Liquidity Planner.
  - Liquidity item definition for Liquidity Management
    If you want use the Liquidity Management functions in SAP Cash Management powered by SAP HANA, note that SAP has provided predefined liquidity items and sample liquidity item hierarchy. For more information about the required configurations, see Liquidity Items [page 32] and Liquidity Item Hierarchy [page 32].
- Liquidity item derivation
  - In the classic SAP Liquidity Planner, the transaction `FLQINFACC` is used to define liquidity items for info accounts. In SAP Cash Management powered by SAP HANA, the transaction can still be used to define default liquidity items for G/L accounts. It can also be accessed via the Customizing activity *Define Default Liquidity Items for G/L Accounts*. Liquidity items are first derived according to the customer-configured query sequences. If the query sequence fails to determine a liquidity item, the default liquidity item defined here is used and recorded in accounting document line items table.

    > **Note**
    >
    > The Customizing activity *Define Default Liquidity Items for G/L Accounts* is not cross-client.

  - Queries and query sequences
    Queries and query sequences are still used to derive liquidity items. To reuse your configurations, note the following:
    - Query origins except C and D are no longer supported.

- Queries that are defined with origin C or D are supported with SAP Cash Management powered by SAP HANA.
  You are recommended to evaluate and test the queries before you go live with SAP Cash Management powered by SAP HANA, just to ensure that they work as expected with SAP Cash Management powered by SAP HANA.
  For more information, see *Derive Liquidity Items for Accounting Documents* in Liquidity Items and Liquidity Item Hierarchies [page 26].
- In SAP Cash Management powered by SAP HANA, the concept One Exposure from Operations was introduced. The One Exposure from Operations hub works as a central storage location for operational data that is relevant for cash management. Source applications, for example bank statements (origin B in the classic SAP Liquidity Planner), can be set up for the One Exposure from Operations hub. You can use query origins C and D to derive liquidity items for Financial Operations, and query origin X to derive liquidity items for all other source applications integrated into the One Exposure from Operations hub.
  For more information, see Configurations for One Exposure from Operations. [page 18]

- Exit function and other extensions
  - If you have used exit functions in the classic SAP Liquidity Planner, you need to review the logic and adapt the code to the new exit function template `FCLM_LQF_DERIVE_LQITEM_SAMPL`.
  - If you have implemented other extensions, they may not be supported any more. For example, you have added custom fields to the liquidity planner tables (`FLQ*` tables) in the classic SAP Liquidity Planner. However, the fields are no longer supported as SAP Cash Management powered by SAP HANA consumes data only from the `BSEG` table and the `FQM_FLOW` table.
    You are recommended to evaluate if the extensions are still needed with SAP Cash Management powered by SAP HANA, as with the new document chain derivation mechanism, most of the important analysis dimensions are available for analyzing the source and use of cash, for example, liquidity item, house bank account, WBS element, profit center, and so on.

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