



Integration Guide | PUBLIC

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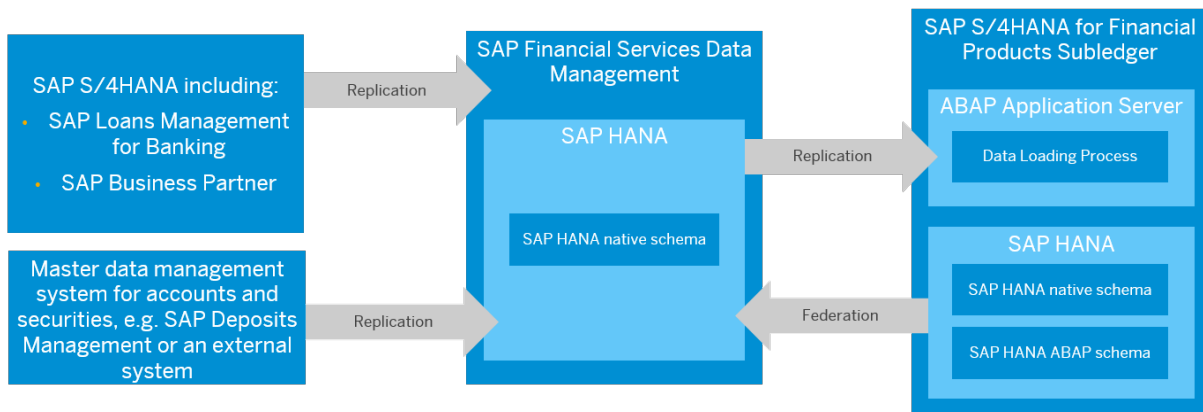
# Integration Between Different Financial Services Products

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# 1 Integration Between Different Financial Services Products

You can store the loans data in SAP Loans Management for Banking, SAP S/4HANA edition (FS-CML) and use an extraction, transformation, and loading (ETL) process (SDI Flowgraphs and stored procedures) to transfer data from SAP Loans Management for Banking, SAP S/4HANA edition to SAP Financial Services Data Management. In the same way, it is possible to replicate business partner data from SAP S/4HANA to SAP Financial Services Data Management. Data sharing between SAP Financial Services Data Management and SAP S/4HANA for financial products subledger is provided as integration content for loans, accounts, securities, and OTC derivatives. The data from SAP Financial Services Data Management is **replicated** to SAP S/4HANA for financial products subledger. Conversely, the data from SAP S/4HANA for financial products subledger is shared through **data federation**, which allows the data to remain in its primary data source until required for specific downstream needs.



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## Sample Content

- For the integration of SAP Loans Management for Banking, SAP S/4HANA edition into SAP Financial Services Data Management, we provide sample content. For more information, see [Data Provisioning for SAP Loans Management](#).

- For the integration of SAP S/4HANA, SAP Business Partner into SAP Financial Services Data Management, we provide sample content.  
For more information, see [Data Provisioning for SAP Business Partner](#).
- For the integration of SAP Financial Services Data Management into SAP S/4 HANA for financial products subledger, we provide sample content.  
For more information, see [Data Provisioning for Subledger Accounting](#).

All products need an SAP HANA database, but have different schemas on top. Replication of data from SAP S/4HANA (SAP Loans Management for Banking and SAP Business Partner) to SAP Financial Services Data Management is done with Smart Data Integration (SDI). A delta version of the data from SAP Financial Services Data Management is replicated to SAP S/4HANA for financial products subledger. Data Loading Process is used for the replication and is based in the ABAP application server of SAP S/4HANA for financial products subledger.

## 1.1 Possible Product Combinations for Integration

Product	Available as of December 2021	Available as of April 2022	Available as of July 2022	Available as of November 2022	Available as of March 2023
SAP Loans Management for Banking, SAP S/4HANA edition	S/4HANA 2020 OP	S/4HANA 2020 OP	S/4HANA 2020 OP	S/4HANA 2020 OP	S/4HANA 2020 OP
SAP Financial Services Data Management	1.15	1.16	1.17	1.18	1.19
SAP HANA Platform edition	2.0 SPS05	2.0 SPS05	2.0 SPS05	2.0 SPS05	2.0 SPS05
SAP S/4HANA for financial products subledger	2107	2107	2107 FPS02	2107 FPS02	2107 FPS03
SAP S/4HANA	2020 FPS01	2020 FPS01	2020 FPS03	2020 FPS03	2020 FPS03
SAP S/4HANA, SAP Business Partner for FS	S/4HANA 2020 OP	2020 FPS01	2020 FPS01	2020 FPS01	2020 FPS01

Every product requires special software components. If you combine the product versions according to one of the columns described above, please check in the upgrade guide of every product version for the minimum software component:

- SAP S/4HANA: [SAP S/4HANA Installation Guide](#)
- SAP S/4HANA for financial products subledger: [Administration Guide for SAP S/4HANA for financial products subledger](#)
- SAP Financial Services Data Management: [Installation and Upgrade Information](#)
- SAP HANA: [SAP HANA Server Installation and Update Guide](#)

## 2 Integrate SAP Loans Management for Banking, SAP S/4HANA edition with SAP Financial Services Data Management

You use this integration to replicate loan contract data and transactional data for loans from SAP Loans Management for Banking, SAP S/4HANA edition (FS-CML) to the corresponding entities of SAP Financial Services Data Management. The **sample content** that is delivered is based on the requirements of SAP S/4 HANA financial products subledger. Therefore, only a subset of tables from SAP Loans Management for Banking, SAP S/4HANA edition is replicated. You can enhance the integration content according to your needs.

### Which Data Is Transferred?

The data from the following tables in SAP Loans Management for Banking, SAP S/4HANA edition is relevant:

- VDARL (Loans)
- VZZKOKO (Table Condition Header)
- VDGP0 (Loan: Relationship Partner/Role Object)
- VDCHGPTR (Change Pointers Loan)
- VDBEPI (Posted Line Items for Document Header)
- VDBEKI (Flow Data: Document Header for Actual Record)
- VDBEPP (Flow Data – Planned Item)

### What Do You Have to Do in Advance?

1. The loans data must be exposed by ABAP CDS views for consumption in SAP Financial Services Data Management. For more information about these ABAP CDS views, see [CDS Views for Loans Management \(FS-CML\)](#).
2. You need to create a remote source in the FSDM system to access loans data from SAP Loans Management for Banking, SAP S/4HANA edition using Smart Data Access (SDA) technology. Once the remote source is created, virtual tables must be created in FSDM. Each virtual table corresponds to the ABAP CDS view of FS-CML, which provides the data for replication.
3. For SAP Financial Services Data Management, activate the sample content for data provisioning for SAP Loans Management.  
For more information about installing the template, see SAP Help Portal for SAP Financial Services Data Management in the [Sample Content Guide](#) in the section *Setting Up the Sample Project*.

## How Does the Extraction, Transformation, and Loading (ETL) Process of Integration Work?

1. From the FS-CML database tables, the data is accessed using CDC-enabled ABAP CDS views. For the data load from FS-CML, temporary tables are required in FSDM to store the data from the ETL process. The system creates the temporary tables in FSDM. The data in these views is extracted using Smart Data Access (SDA). Two separate procedures are available for the extraction of master data and transaction data.
2. The system transforms the data (mapping with FSDM structures) and loads data from temporary tables to FSDM tables. Two separate procedures are available for the transformation and loading of master data and transaction data.

The ETL procedures are capable of determining delta data sets for incremental extraction during subsequent runs of the ETL process. Error handling and message logging capabilities are implemented in the ETL process. In case a particular run of the ETL process fails, for example, due to incorrect data at source, additional procedures are available. These can be used to restart a failed run manually after correcting the data at source.

### More Information

SAP Note [2837614](#) 

# 3 Integrate SAP Business Partner for Financial Services, SAP S/4HANA edition with SAP Financial Services Data Management

You use this integration to replicate business partner data from SAP Business Partner for Financial Services, SAP S/4HANA edition (FS-BP) to the corresponding entities of SAP Financial Services Data Management. The **sample content** that is delivered is based on the requirements of European regulatory reporting. Therefore, only a subset of tables from SAP Business Partner for Financial Services, SAP S/4HANA edition is replicated. You can enhance the integration content according to your needs.

## Which Data Is Transferred?

The data from the following ABAP CDS views in SAP Business Partner for Financial Services, SAP S/4HANA edition is relevant:

- I\_BUSINESSPARTNER
- I\_ADDRESS
- I\_BUSINESSPARTNERADDRESSUSAGE
- I\_BPFINANCIALSERVICESEXTN
- I\_BUSINESSPARTNERRATING
- I\_BPCREDITWORTHINESS
- I\_BPEMPLOYEMENT
- I\_BUSINESSPARTNERINDUSTRY
- I\_BUPAIDENTIFICATION
- I\_ILMDataPrivacyNotification

Business Partner relationship data is extracted from table BUT050 (BP relationships/role definitions: General data) by manually creating a custom CDS view for consumption in the integration content.

## What Do You Have to Do in Advance?

1. The business partner data must be exposed by ABAP CDS views for consumption in SAP Financial Services Data Management. For more information about these ABAP CDS views, see [CDS Views for Master Data Management](#) ►► [CDS Views for Business Partner](#) ►.
2. You need to create a remote source in the FSDM system to access business partner data from SAP Business Partner for Financial Services, SAP S/4HANA edition using Smart Data Access (SDA) technology. Once the remote source is created, virtual tables must be created in FSDM. Each virtual table corresponds to the ABAP CDS view of FS-BP, which provides the data for replication.

### i Note

Additional ABAP CDS views need to be built on top of the standard FS-BP ABAP CDS views to extract FSDM-relevant data.

3. For SAP Financial Services Data Management, activate the sample content for data provisioning for SAP Business Partner for Financial Services, SAP S/4HANA edition.  
For more information about installing the template, see SAP Help Portal for SAP Financial Services Data Management in the [sample content](#) in the section *Setting Up the Sample Project for Data Replication*.

## How Does the Extraction, Transformation, and Loading (ETL) Process of Integration Work?

1. From the FS-BP database tables, the data is accessed using CDC-enabled ABAP CDS views. For the data load from FS-BP, temporary tables are required in FSDM to store the data from the ETL process. The system creates the temporary tables in FSDM. The data in these views is extracted using Smart Data Access (SDA).

The following flow graphs are used for realtime and batch type data transfer:

Realtime (RT)	Batch
FG_BUSINESSPARTNER_RT	FG_BUSINESSPARTNER_BATCH
FG_ADDRESS_RT	FG_ADDRESS_BATCH
FG_BPSTATUS_RT	FG_BPSTATUS_BATCH
FG_INDUSTRY_RT	FG_INDUSTRY_BATCH
FG_OCCUPATION_RT	FG_OCCUPATION_BATCH
FG_RATING_RT	FG_RATING_BATCH
FG_ILM_NOTIFICATION_RT	FG_ILM_NOTIFICATION_BATCH
FG_BPRELATION_RT	FG_BPRELATION_BATCH
FG_BPIDENTIFICATION_RT	FG_BPIDENTIFICATION_BATCH

2. The system transforms the source data (value mapping between business partner and FSDM structures) and loads data from temporary tables to FSDM tables.

The ETL procedures are capable of determining delta data sets for incremental extraction during subsequent runs of the ETL process. Error handling and message logging capabilities are implemented in the ETL process. In case a particular run of the ETL process fails, for example, due to incorrect data at source, additional procedures are available. These can be used to restart a failed run manually after correcting the data at source.

## More Information

SAP Note [3017695](#)

# 4 Integrate SAP Financial Services Data Management with SAP S/4HANA for Financial Products Subledger

You use this integration to replicate data for loans, accounts, securities, and OTC derivatives from SAP Financial Services Data Management to SAP S/4HANA for financial products subledger. The [sample content](#) that is delivered is based on the requirements of SAP S/4HANA for financial products subledger. You can enhance the integration content according to your needs.

## Which Data Is Replicated?

The following data objects are relevant:

- Master data
  - Financial contracts (including business partner contract assignments and limits, and object relations to map master contracts)
  - Securities (These are called financial instruments in SAP Financial Services Data Management.)
  - Securities accounts
- Flow data
  - Business transactions (These are called settlements in SAP Financial Services Data Management.)
  - Contract-related cash flows
- Analytical statuses (for example classification, status of accrual, impairment, or write-down)
- Key date values
  - Statement about contract modification
  - Accruals
  - Accrued interest
  - Credit risk adjustments data (days past due, credit risk adjustments, probability of default, loss given default, master rating, credit conversion factor)
  - Fair value for collaterals
  - Preliminary subledger documents
  - Amortized costs
- Rates and factors
  - Days past due
  - Probability of default
  - Loss given default
  - Master rating
  - Credit conversion factor
- Market data
  - Exchange rates

- Security prices

## Good to Know About Data Provisioning

Suppose you replicate key date values that are versioned in SAP S/4HANA for financial products subledger with the versioning schema **One-Dimensional**. In that case, the system automatically fills up data entries for key dates for which no record is available in SAP Financial Services Data Management, according to the settings maintained in the *Customizing* table `sap.fsdm.content.DataProvisioningForSubLedger::ValidityDatesConfig`.

For example, if you have an *AmortizedCost* entry for Friday and the next entry for Wednesday, and the *Customizing* setting for the respective mapping view is set to **3**, the system generates entries for Saturday, Sunday, and Monday. This filling up only takes place for gaps beginning with the business validity start date up to the future date, calculated by adding the number of versions retrieved from *Customizing* to the business validity start date.

### Note

For key figures, for which the *MaxNumberOfVersions* in *Customizing* is set to **1**, filling up is deactivated.

For key figures without records maintained in *Customizing*, this filling up takes place for gaps up to one year in advance, beginning with the business validity start date.

## Which Data Is Federated?

The following data objects are relevant:

- Analytical statuses (for example, classification, status of accrual, impairment, or write-down)
- Subledger journal entries (These are called subledger documents in SAP Financial Services Data Management.)

## What Do You Have to Do in Advance?

1. Install SAP S/4HANA for financial products subledger and SAP Financial Services Data Management, either in one SAP HANA instance or in two different SAP HANA instances.  
Install the business content for SAP S/4HANA for financial products subledger. The business content has to be installed with an ASU task list as described in SAP Note [2711006](#).  
For SAP Financial Services Data Management, activate the sample content for data provisioning for subledger accounting.  
For more information about installing the template, see SAP Help Portal for SAP Financial Services Data Management in the [Sample Content Guide](#) in the section [Download](#).

## i Note

For structured products, note the following mapping:

Header or child nodes of master data and key figure data must be provided in the `<RoleOfPayer>` field in SAP Financial Services Data Management. The `<RoleOfPayer>` field must be mapped to the `/BA1/C11NODENO` field in SAP S/4HANA for financial products subledger. The following is an example:

Mapping for Structured Products

Field Entry in SAP Financial Services Data Management	Field Entry in SAP S/4HANA for Financial Products Subledger
-empty-	00001
Leg1Payer	00002
Leg2Payer	00003

## i Note

During normal operation, Data Loading Process transfers all versions that have a technical version that has changed since the last data load. The transfer takes place from SAP Financial Services Data Management to SAP S/4HANA for financial products subledger. If you **go live** with SAP S/4HANA for financial products subledger, you can limit the versions of the **master data** or data that is modeled as an SAP S/4HANA for financial products subledger result category delivered to the system during initialization. The table `sap.fsdm.content.DataProvisioningForSubLedger::InitializationConfig` is available in SAP Financial Services Data Management for this purpose. You define this initialization date depending on the relevant source system. You can activate the initialization with the `Activate` indicator. Technically, this means that the value of the `Active` field is set to 1. If you use the table, make entries for all your source systems or make one entry that is empty. You are not allowed to make entries for only a part of your source systems.

- If all versions are to be transferred, leave the table empty or enter a date far in the past, but deactivate the indicator. The system behaves like during normal operation.
- If you want to transfer only the last valid versions before or on the initialization date, activate the indicator and define an initialization date. The system transfers all versions of a master data object that are valid on this date.
- If you want to transfer only versions for which the business date is after the initialization date, deactivate the indicator (technically, this means that the value of the `Active` field is set to 0), and leave the entry in the initialization date field. The system ignores versions whose validity ends before or on the initialization date, even if they have a newer system timestamp. We recommend this setting. Versions that have a `BusinessValidFrom` date before or on the initialization date are transferred. During the transfer, however, the `BusinessValidFrom` date is set to the next day after the initialization date.

If you are transferring **settlements**, the system reacts as follows:

- If the initialization is active, the system transfers settlements for which the posting dates are the same as the value dates and the initialization date.

- If the initialization is finished, the system transfers settlements for which the posting dates are after the initialization date. The value date is ignored.

2. For the data replication from SAP Financial Services Data Management to SAP S/4HANA for financial products subledger, the two systems must be able to communicate through a secondary database connection. SAP uses ABAP Database Connectivity (ADBC) to open a secondary database connection from SAP S/4HANA for financial products subledger to the SAP HANA database on which SAP Financial Services Data Management is running and to pull the data into the ABAP-based system. For more information about how to set up the secondary database connection, see SAP Note [2785178](#). For the data federation from SAP S/4HANA for financial products subledger back to SAP Financial Services Data Management, you need a remote source that points to the FPSL system. For more information about how to set up the remote source, see the guide attached to SAP Note [2785178](#).
3. SAP uses *Data Loading Process* to replicate data from SAP Financial Services Data Management to SAP S/4HANA for financial products subledger. Define the following settings in *Customizing* for SAP S/4HANA for financial products subledger (a,b, and c may already be included in the business content):
  1. [Financial Products Subledger](#) > [Infrastructure](#) > [Data Loading Process](#) > [Default Mapping](#) > [Define Data Sources and Data Source Categories](#). Please use the data source category **SAP HANA** for data sources and the system on which SAP Financial Services Data Management is running for the database connection.
  2. [Financial Products Subledger](#) > [Infrastructure](#) > [Data Loading Process](#) > [Default Mapping](#) > [Enter Settings for Mapping of Parameters to InfoProviders](#). Please fill the *data source* instead of the *InfoProvider* field for the relevant export object types.
  3. [Financial Products Subledger](#) > [Infrastructure](#) > [Data Loading Process](#) > [Special Mapping for Parameters](#).
  4. Define special process chains for each object type according to the list in SAP Note [2785178](#).

## How Does the Process of Integration Work?

Integration enables the following end-to-end-process:

1. Load data to SAP Financial Services Data Management.
2. Start Data Loading Process in SAP S/4HANA for financial products subledger. The system counts the number of new or changed objects in SAP Financial Services Data Management and creates package change pointers for them. The system reads these change pointers, reads data from SAP Financial Services Data Management, maps them to interfaces (function modules for data load), and loads the data into the data model tables of SAP S/4HANA for financial products subledger.
3. Run the SAP S/4HANA for financial products subledger business processes.
4. Report the results from SAP S/4HANA for financial products subledger (subledger journal entries) in SAP Financial Services Data Management in the data access interface.

## More Information

- SAP Note [2785178](#)

- SAP Note [2868940](#) 

## 5 Document History

Document history for *Integration Between Different Financial Services Products*.

Document Version	Date	Description
1.13	17-March-2023	Integration with SAP S/4 HANA for financial products subledger has been updated for the new version 1.19 of SAP Financial Services Data Management
1.12	10-November-2022	Integration with SAP S/4 HANA for financial products subledger has been updated for replication of key date values
1.11	29-July-2022	Integration with SAP S/4 HANA for financial products subledger has been updated for initialization
1.10	08-April-2022	Integration with SAP S/4 HANA for financial products subledger has been updated for initialization
1.9	15-December-2021	SAP S/4HANA for financial products subledger has been updated to 2107
1.8	06-August-2021	<ul style="list-style-type: none"><li>• Support of initialization of SAP S/4HANA for financial products subledger for settlements and result data</li></ul>
1.7	28-May-2021	<ul style="list-style-type: none"><li>• Support of initialization of SAP S/4HANA for financial products subledger</li></ul>
1.6	26-February-2021	<ul style="list-style-type: none"><li>• Integration with SAP S/4HANA Business Partner</li><li>• Integration with SAP S/4HANA for financial products subledger has been updated for master data contracts</li></ul>
1.5	14-December-2020	SAP S/4HANA for financial products subledger has been updated to 1812 FPO4



<b>Document Version</b>	<b>Date</b>	<b>Description</b>
1.4	13-November-2020	<ul style="list-style-type: none"> <li>• Integration with SAP S/4 HANA for financial products subledger has been updated for OTC derivatives</li> <li>• Integration with SAP Loans Management for Banking, SAP S/4HANA edition has been enhanced with CDC-enabled views</li> </ul>
1.3	26-August-2020	SAP S/4HANA for financial products subledger has been updated to 1812 FP03
1.2	05-June-2020	Integration with SAP S/4 HANA for financial products subledger has been updated for securities and securities accounts
1.1	13-March-2020	SAP S/4 HANA financial products subledger 1812 FP02 in combination with SAP Financial Services Data Management 1.9 and/or SAP Loans Management for Banking, SAP S/4HANA edition (FS-CML)
1.0	13-December-2019	SAP S/4 HANA financial products subledger 1812 FP02 in combination with SAP Financial Services Data Management 1.8

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