Sirion CLM Integration with SAP S/4HANA OA

SAP CI Configuration Guide

Setup & Operations Guide — Replicate Contract from Sirion CLM to SAP S/4HANA

Sirion Labs — SAP Integration Team

Version 2.0 | July 2026

Disclaimer

The information contained in this document is the proprietary and exclusive property of Sirion Labs except as otherwise indicated. No part of this document, in whole or in part, may be reproduced, stored, transmitted, or used for design purposes without the prior written permission of Sirion Labs.

The information contained in this document is subject to change without notice. Sirion Labs specifically disclaims all warranties, express or limited, including, but not limited, to the implied warranties of merchantability and fitness for a particular purpose, except as provided for in a separate software license agreement.

Document History

The following table shows the document history:

Date	Version	Comments
08th Oct 2025	v1.0	Initial release
July 2026	v2.0	Updated content: quick start, configure parameters, troubleshooting, FAQ

 Copyright © 2012–2026 Sirion Labs, All rights reserved

Contents

Disclaimer 2
Document History 2
Contents 3
1. Introduction 4
1.1 Data Synchronization between SAP S/4HANA and Sirion CLM 4
1.2 Intended Audience 5
2. Before You Begin (Pre-requisites) 6
2.1 API & Endpoint Requirements 6
2.1.1 SAP S/4HANA Endpoints 6
2.1.2 Sirion CLM Endpoints 6
2.1.3 Sirion Metadata Fields 6
2.2 Readiness Checklist 7
3. Quick Start 8
4. SAP CI Configuration 9
4.1 Copy Package 9
4.2 Package Artifacts 9
4.3 Access Design Mode 9
4.4 Security Artifacts Setup 9
4.4.1 Sirion CLM Credentials 9
4.4.2 Connectivity with SAP S/4HANA 9
4.5 Integration Flow Configuration (Configure Parameters) 10
4.5.1 Sirion Connection & Routing 10
4.5.2 S/4HANA Connection 10
4.5.3 Inbound Webhook (Sender) Configuration 10
4.5.4 Processing Options 11
4.5.5 Email Notifications 11
4.5.6 API Retry & Error Handling 11
5. Field Mappings & Value Maps 12
5.1 Field Mappings 12
5.2 Value Maps 12
6. First Run — Verify Success 14
7. Troubleshooting 15
7.1 Common Symptoms 15
8. Frequently Asked Questions 16

 Copyright © 2012–2026 Sirion Labs, All rights reserved

1. Introduction

This document provides a comprehensive guide to the key configuration steps required for seamless integration between Sirion Contract Lifecycle Management (CLM) and SAP S/4HANA. It covers:

- Pre-requisites (Sirion CLM and SAP S/4HANA configuration)
- SAP CI configuration — copy package, security artifacts, and iFlow parameters
- Field mappings and value maps
- First-run verification, troubleshooting, and FAQs

For detailed architecture, API references, and exhaustive field mappings, refer to the Technical Reference (attached separately).

1.1 Data Synchronization between SAP S/4HANA and Sirion CLM

The integration streamlines and automates the contract replication workflow, ensuring efficient Outline Agreement management. The following is a high-level view of the data flow between the systems involved:

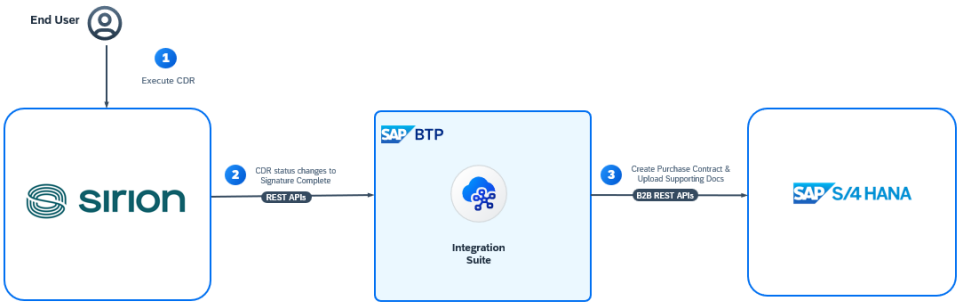

Figure 1: Integration Workflow

When a Contract (CO) is executed in Sirion CLM (Step 1 & Step 2), the relevant metadata, line items (CLIs), and documents are extracted via SAP Cloud Integration. The system then checks for an existing Outline Agreement ID in Sirion CLM. If found, the process updates the existing Outline Agreement or terminates if no changes are detected. If the field is empty, a new Outline Agreement is created in SAP S/4HANA and associated documents are uploaded (Step 3). Finally, the Outline Agreement ID and integration status are written back to Sirion CLM (Step 4).

 Copyright © 2012–2026 Sirion Labs, All rights reserved

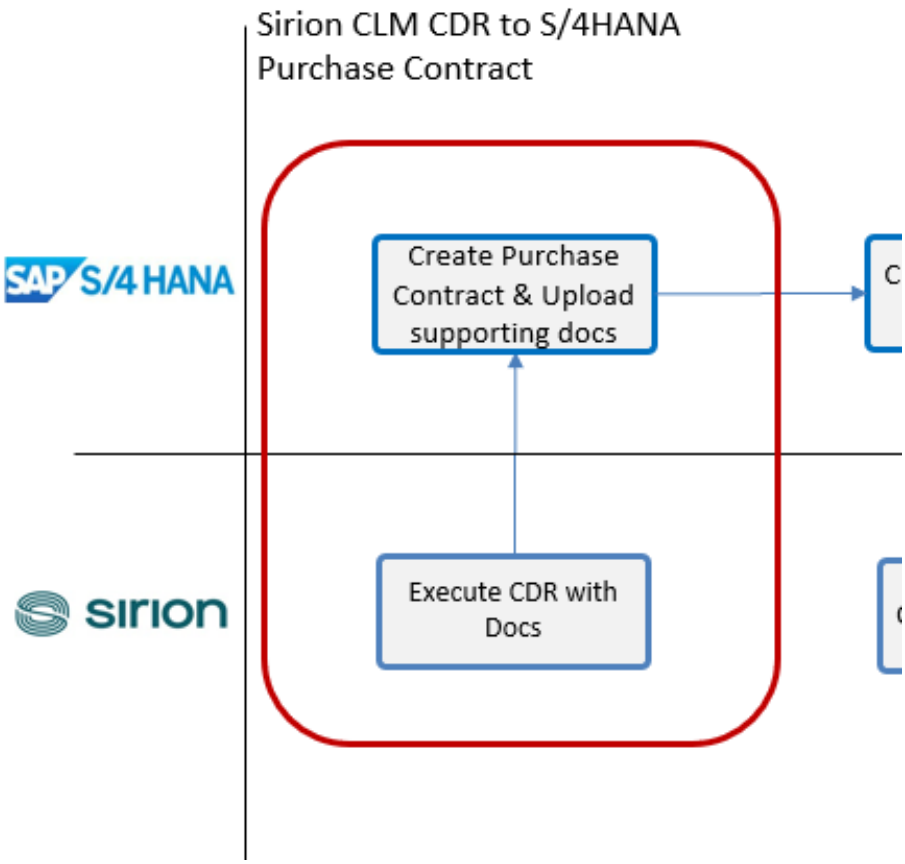

Figure 2: Data Flow Between the Systems

1.2 Intended Audience

This document is intended for the following teams:

- Integration Developers
- Business Users
- Product Management

 Copyright © 2012–2026 Sirion Labs, All rights reserved

2. Before You Begin (Pre-requisites)

Complete these items before importing the package or running a test. Skipping them is the most common cause of first-run failures.

2.1 API & Endpoint Requirements

Ensure the following services are active and accessible via the provided credentials:

2.1.1 SAP S/4HANA Endpoints

- **Outline Agreement OData Service:** /API_PURCHASECONTRACT_PROCESS_SRV — Processes Outline Agreement header, items, and metadata via $batch payloads.
- **Document Attachment OData Service:** /API_CV_ATTACHMENT_SRV — Used to fetch existing attachments and upload new attachments via AttachmentContentSet.

2.1.2 Sirion CLM Endpoints

- **Contract Header Fetch (GET):** /b2bapi/v3/{{Sirion Entity Identifier}}/{uuid}
- **Supplier Details Fetch (GET):** /b2bapi/v3/suppliers/{uuid}
- **Line Item Templates Search (POST):** /b2bapi/v3/{{Sirion Entity Identifier}}/contract-line-item-templates/search
- **Contract Line Items Search (POST):** /b2bapi/v3/contract-line-item-templates/{templateUuid}/contract-line-items/search
- **Document List Search (POST):** /b2bapi/v3/{{Sirion Entity Identifier}}/{uuid}/{repoId}/search
- **Document Binary Download (GET):** Dynamic link returned by Sirion
- **Contract Writeback (PATCH):** /b2bapi/v3/{{Sirion Entity Identifier}}/{uuid}

2.1.3 Sirion Metadata Fields

Supplier Metadata

S.No.	Field Name	Field Type
1	Purchasing Organization	Single-select

Contract Request (CDR) Metadata

S.No.	Field Name	Field Type
1	Counterparty	Single-select
2	Payment Terms (in Days)	Single-select
3	Effective Date	Date
4	Expiration Date	Date
5	Purchase Contract Target Amount	Number
6	Purchase Contract Type	Single-select

 Copyright © 2012–2026 Sirion Labs, All rights reserved

Contract Line Items (CLI) Metadata

S.No.	Field Name	Field Type
1	Material	Dropdown
2	Quantity	Number
3	Price	Number
4	Amount	Auto-calculated (Quantity × Price)

2.2 Readiness Checklist

	Gate Item	Who
☐	Sirion OAuth client; credentials in Security Material (`Sirion Auth Security Material`)	Sirion admin
☐	S/4 OData access enabled (see 2.1); SAP `AIR Key` and SAP `Client Code` documented	SAP Basis
☐	S/4 credentials in SAP CI Security Material (alias matches `S/4HANA Auth Security Material`)	Integration / Security
☐	SAP CI Sender endpoint enabled for incoming Sirion webhooks	Integration Dev
☐	Sirion custom fields created: `Sirion Key Field Apiname`, `Sirion Supplier Field Apiname`, `Sirion Agreement Type Apiname`, `Sirion CLI Match Field API Name`	Sirion Config
☐	Sirion custom writeback fields created (Integration Status, Integration Message) matching API names in iFlow	Sirion Config
☐	SAP S/4HANA item field created for matching line items (`S/4HANA Line Match Field API Name`)	SAP Basis
☐	SAP CI value maps configured for mapped fields (e.g. Payment Terms)	Integration Dev
☐	Network: Sirion → SAP CI, SAP CI → Sirion B2B API, SAP CI → S/4 OData, SMTP (if email enabled)	Network

 Copyright © 2012–2026 Sirion Labs, All rights reserved

3. Quick Start

Follow these steps in order to configure and deploy the integration.

1. **Deploy dependencies:** Add Security Materials for Sirion Auth, S/4HANA Auth, and SMTP Auth (see Section 4.4).
2. **Deploy value maps:** Ensure any required value maps exist on your SAP CI tenant (see Section 5).
3. **Configure the iFlow:** Enter your URLs, API field names, and authentication material names. Ensure `S/4HANA Line Match Field API Name` is set to the Z-field created in S/4 (see Section 4.5).
4. **Enable documents:** (Optional) Set `Enable Document Upload` to Yes if attachments should sync.
5. **Deploy:** Deploy the iFlow and note the endpoint URL generated for incoming requests.
6. **Configure Sirion Webhook:** Use the SAP CI Endpoint URL to set up the event webhook in Sirion. Include any necessary credentials or CSRF tokens.
7. **Trigger a test:** Finalize or change a contract in Sirion to trigger the webhook and observe the integration log (MPL) in SAP CI.

 Copyright © 2012–2026 Sirion Labs, All rights reserved

4. SAP CI Configuration

4.1 Copy Package

Copy the following package from Discover to the Design section on your tenant:

Sirion Contract Lifecycle Management Integration with SAP S/4HANA

> Note: If the integration package is being created for the first time, you will see the "Integration Package Created" message. Otherwise, you will be prompted to create a new copy or overwrite the existing content. Click Overwrite.

4.2 Package Artifacts

- **Replicate Contract Request from Sirion CLM to SAP S4HANA** — Enables replication of signed CDR, line items (CLIs), and documents from Sirion CLM to Outline Agreement (OA) in SAP S/4HANA.
- **Value Mapping Between SAP S4HANA and Sirion CLM** — Enables bidirectional field mapping between SAP S/4HANA and Sirion CLM values.

4.3 Access Design Mode

In the left navigation bar, select Design mode. The package will be visible in the design area and ready for configuration.

4.4 Security Artifacts Setup

4.4.1 Sirion CLM Credentials

Create a Security Material of type OAuth2 Client Credentials with the Sirion OAuth credentials (provided by your Sirion administrator). Provide the following details:

- Name: <Credential Name>
- Token Service URL: <OAuth2 Token Endpoint URL>
- Client ID / Client Secret
- Client Authentication: Send as Body Parameter
- Content Type: application/x-www-form-urlencoded

After creating, set the `Sirion Auth Security Material` parameter in the iFlow to this credential name.

4.4.2 Connectivity with SAP S/4HANA

Navigate to Monitor → Integrations and APIs → Security Material and create a credential of the required type:

- **Basic authentication:** Type User Credentials — provide username and password.
- **OAuth2 authentication:** Follow Section 4.4.1 steps using the S/4HANA credentials.

After creating, set the `S/4HANA Auth Security Material` parameter in the iFlow to the name of the Security Material created above.

 Copyright © 2012–2026 Sirion Labs, All rights reserved

4.5 Integration Flow Configuration (Configure Parameters)

These settings are exposed on the Configure screen in SAP CI. Most parameters persist across package upgrades.

4.5.1 Sirion Connection & Routing

Parameter	Description
`Sirion Host`	Base URL for Sirion API (e.g. https://api.sirionlabs.com).
`Sirion Auth Security Material`	Name of the OAuth2 credentials deployed in SAP CI for Sirion.
`Sirion Entity Identifier`	Identifier used in the Sirion API endpoint path. Defaults to `contracts`.
`Sirion Key Field Apiname`	Sirion contract field API name used as the SAP Outline Agreement reference. Defaults to `cf_sapContractNumber`.
`Sirion Supplier Field Apiname`	Sirion contract field for the linked supplier. If array, first entry s_uuid is used. Defaults to `supplier`.
`Sirion Agreement Type Apiname`	Sirion field for agreement type; script reads s_externalId. Defaults to `agreementType`.
`Sirion CLI Match Field API Name`	API field on Sirion CLI used to match lines against S/4 (e.g. `id`). Defaults to `id`.
`Sirion Entity Document Status to Fetch`	Comma-separated list of document statuses to download from Sirion.

4.5.2 S/4HANA Connection

Parameter	Description
`SAP S/4HANA Base URL`	Base URL for S/4HANA API endpoints.
`S/4HANA Authentication Type`	Authentication method (e.g. `Basic`, `OAuth2 Client Credentials`).
`S/4HANA Auth Security Material`	Name of the credentials deployed in SAP CI for S/4HANA.
`SAP Client Code`	SAP Client query parameter if required (e.g. `100`).
`SAP AIR Key`	SAP API-specific routing headers (e.g. for Ariba Cloud Integration Gateway).
`S/4HANA Line Match Field API Name`	Custom Z-field on S/4 purchase contract item used to match and write Sirion CLI id. Set to your Z-field technical name.
`S/4HANA Business Object Type`	Business object type for API_CV_ATTACHMENT_SRV. Defaults to `BUS2014`.

4.5.3 Inbound Webhook (Sender) Configuration

Parameter	Description
`SAP CI iFlow Path`	URL path exposed by SAP CI for this integration.
`Authorization`	Sender authorization type (e.g. `RoleBased` or `ClientCertificate`).
`User Role`	User role required for the sender (e.g. `ESBMessaging.send`).

 Copyright © 2012–2026 Sirion Labs, All rights reserved

CSRF Protected	Enable/disable CSRF token requirement for incoming requests.

4.5.4 Processing Options

Parameter	Description
Enable Document Upload	When Yes, document upload runs after OA create/update. Default No skips document processing.
CDR Executed JMS Queue	Name of the JMS queue used to temporarily store webhook triggers from Sirion CLM.
Transaction Handling - Main Flow	Transaction handling for the main flow (e.g. Required).
Transaction Handling - LIP	Transaction handling for the local integration process.
SAP CI Instance URL	Base URL of your SAP CI instance (used for self-referential calls).

4.5.5 Email Notifications

Parameter	Description
Send Email Flag	Enable or disable email notifications for errors.
Email From	Sender address for alerts.
Email To	Receiver address(es) for alerts.
Email SMTP Server Address	Host and port for SMTP server.
Email SMTP Server Authentication	Authentication method for SMTP server.
SMTP Auth Security Material	Credentials for SMTP server.

4.5.6 API Retry & Error Handling

Parameter	Description
Sirion - Retry Failed Requests	Enable retry for Sirion API timeouts or failures.
Sirion - HTTP Error Response Codes	Codes returned by Sirion without throwing exceptions.
Sirion - Retry Interval (in seconds)	Wait time between Sirion retries.
Sirion - Retry Iterations	Number of Sirion retry attempts.
S/4HANA - Retry Failed Requests	Enable retry for S/4HANA API timeouts or failures.
S/4HANA - HTTP Error Response Codes	HTTP codes returned without throwing (semicolon-separated). Default 400;429;500.
S/4HANA - Retry Interval (in seconds)	Wait time between S/4HANA retries.
S/4HANA - Retry Iterations	Number of S/4HANA retry attempts.

 Copyright © 2012–2026 Sirion Labs, All rights reserved

5. Field Mappings & Value Maps

5.1 Field Mappings

The standard package maps a core set of Sirion CDR and CLI fields to SAP S/4HANA Outline Agreement properties.

S.No.	Sirion Entity → Field Name	SAP S/4HANA Outline Agreement Field	Comments
1	CDR → Purchase Contract Type	General Information → Contract Type	
2	—	General Information → Purchasing Group	Default value used
3	CDR → Counterparty	General Information → Supplier	
4	Supplier → Purchasing Organization	General Information → Purchasing Organization	
5	CDR → Effective Date	General Information → Valid From	
6	CDR → Expiration Date	General Information → Valid To	
7	CDR → Payment Terms (in Days)	Delivery and Payment Terms → Payment Terms	Via Value Map
8	CDR → Purchase Contract Target Amount	Delivery and Payment Terms → Target Value	
9	CLI → Material	Items → Material	
10	CLI → Quantity	Items → Target Quantity	
11	CLI → Price	Items → Net Order Price	
12	CLI → Amount	Items → Price Unit	

Note: Field mappings are highly customizable. Standard data mappings occur in the Message Mapping (.mmap) component. Sirion custom writeback fields (e.g., Integration Status, Integration Message) are defined in a Content Modifier (CM — Set Sirion Writeback Payload). Ensure these fields are created in Sirion and update the Content Modifier JSON payload if your API names differ from defaults (cf_integrationSyncStatus, cf_integrationStatusMessage). Actual mappings may contain additional environment-specific fields.

S/4HANA Custom Z-Field Mapping: The line mapping (sirion_cli_to_s4hana_oa_line_CLT02261.mmap) statically maps the Sirion CLI ID to the standard S/4HANA field PurgDocOrderAcknNumber. If your business requires a custom Z-field, modify the line message mapping to target your Z-field and update S/4HANA Line Match Field API Name accordingly.

5.2 Value Maps

In this integration, only Payment Terms uses a Value Mapping to translate Sirion's Payment Terms (Days) to S/4HANA's Payment Terms (Code) (e.g., "30 Days" → "NT30"). Ensure a value map exists on the tenant with:

- Agency Sirion CLM — Schema: Payment Terms (Days)
- Agency SAP S4/HANA — Schema: Payment Terms (Code)

Other organizational fields (Purchasing Organization, Supplier) are read dynamically from fetched Supplier metadata. Purchasing Group is set to a constant value (default: 001).

 Copyright © 2012–2026 Sirion Labs, All rights reserved

Extract all possible values from both systems and create the master data mapping for Payment Terms. This will be used while configuring the Value Mapping artifact.

 Copyright © 2012–2026 Sirion Labs, All rights reserved

6. First Run — Verify Success

1. **In Sirion:** Create or update a test contract. Move the status to the designated trigger event (e.g. Execution / Final).
2. **In SAP CI:** Go to Monitor Message Processing. Find the run by looking for a recent completed message.
    - Check the log to ensure it extracted the ID correctly from the webhook.
    - Verify Sirion API fetch executed successfully.
    - Verify the S/4HANA OData call completed without error.
3. **In SAP S/4HANA:** Verify the Outline Agreement is created or updated. Check if line items and documents are synchronized correctly.
4. **In Sirion (Writeback):** Verify that the SAP Outline Agreement ID was successfully written back to the Sirion Key Field Apiname field.

 Copyright © 2012–2026 Sirion Labs, All rights reserved

7. Troubleshooting

Identify issues using the SAP CI Message Processing Log (MPL).

7.1 Common Symptoms

- **401 / 403 on Sirion API:** Ensure `Sirion Auth Security Material` matches the deployed OAuth credential alias and has not expired. Verify the User Role Group in Sirion grants external API access.
- **401 / 403 on S/4HANA API:** Verify `S/4HANA Auth Security Material` is correct. Check if `SAP Client Code` is needed.
- **Message Mapping failure:** Usually caused by missing value maps for Payment Terms or unexpected Sirion data types. Check the payload immediately prior to the mapping step.
- **S/4HANA Missing Z-Field error:** `S/4HANA Line Match Field API Name` is improperly configured, or the line mapping has not been updated to target the custom Z-field in S/4.
- **Webhook not triggering:** SAP CI Endpoint URL is incorrect in Sirion, or `CSRF Protected` is enabled but Sirion is not passing a token.

 Copyright © 2012–2026 Sirion Labs, All rights reserved

8. Frequently Asked Questions

How do I find out why a specific record failed?

Set log level to Trace in SAP CI and trigger the event again. Inspect the payload going into S/4HANA to verify all mandatory fields are mapped correctly.

Where can I see the API field mapping logic?

The detailed field-by-field mapping logic is documented in the Technical Reference (attached separately).

Can I reprocess a failed contract?

Yes, you can manually trigger the webhook using a tool like Postman, or edit the contract in Sirion to generate a new event.

What happens if a line item is removed in Sirion?

The standard iFlow only processes line items that are active and returned by Sirion CLM. It does not automatically flag items for deletion in S/4HANA. Deletions must be handled manually in S/4HANA or via a custom extension to the iFlow.

What is the CDR Executed JMS Queue parameter?

It is the name of the JMS queue used to temporarily store incoming webhook triggers from Sirion CLM before processing. Ensure the queue exists on your SAP CI JMS broker before deploying.

 Copyright © 2012–2026 Sirion Labs, All rights reserved

END OF THE DOCUMENT

Copyright © 2012–2026 Sirion Labs, All rights reserved

 Copyright © 2012–2026 Sirion Labs, All rights reserved