

# Project: RenewSure – Smart Contract Expiry & Renewal Tracker

## Phase 7: Integration & External Access


In this phase, we enabled integration and external access capabilities for the Contract Renewal Management System. This allows the system to communicate internally and externally in real-time, providing scalability and extending functionality.

### 1. External Objects

We configured External Objects in Salesforce to access external customer and order data in real-time. This allows Contracts to reference external orders and customers without importing the data into Salesforce.

✓ Steps Followed:

- Setup → External Data Sources → New External Data Source
- Configured Type: Salesforce Connect: Custom
- Provided placeholder URL for internal API access (demo purposes)
- Validated & Synced External Objects: Customers\_\_x, Orders\_\_x, Order\_Details\_\_x
- Created Lookup relationships from Contracts to Orders\_\_x for real-time visibility

 **SETUP**  
**External Objects**

### External Objects

[Help for this Page](#)

Use external objects to virtually represent external data as Salesforce objects. External objects map to a table in a data source outside the Salesforce org and enable access to that data via custom tabs and search. Each external object requires an [external data source](#) definition for connection details.

[New External Object](#)


Action	Label	Deployed	External Data Source	Description
<a href="#">Edit</a>   <a href="#">Erase</a>	Customer	✓	Contract_External_Data	
<a href="#">Edit</a>   <a href="#">Erase</a>	Order	✓	Contract_External_Data	
<a href="#">Edit</a>   <a href="#">Erase</a>	Order_Detail	✓	Contract_External_Data	

## 2. Platform Events

Platform Events were used to publish and subscribe to custom events when a contract status changes. This ensures real-time notifications and decoupled communication.

✓ Steps Followed:

- Created Platform Event: Contract\_Event\_\_e with fields - ContractId, Status, EventDate
- Published event from Apex Trigger on Contract\_\_c status change
- Subscribed to events in LWC to display real-time updates to users

 **Platform Events**

### Platform Events

Use platform events to define the data to be delivered in custom notifications. Monitor the publishing and delivery usage for platform events and change events.

**Event Allocations**

Item	Usage	Allocation
High-Volume Platform Event Hourly Publishing Allocation	0	50,000
High-Volume Platform Event and Change Event Daily Delivery Allocation	0	10,000

**Custom Events**

New Platform Event

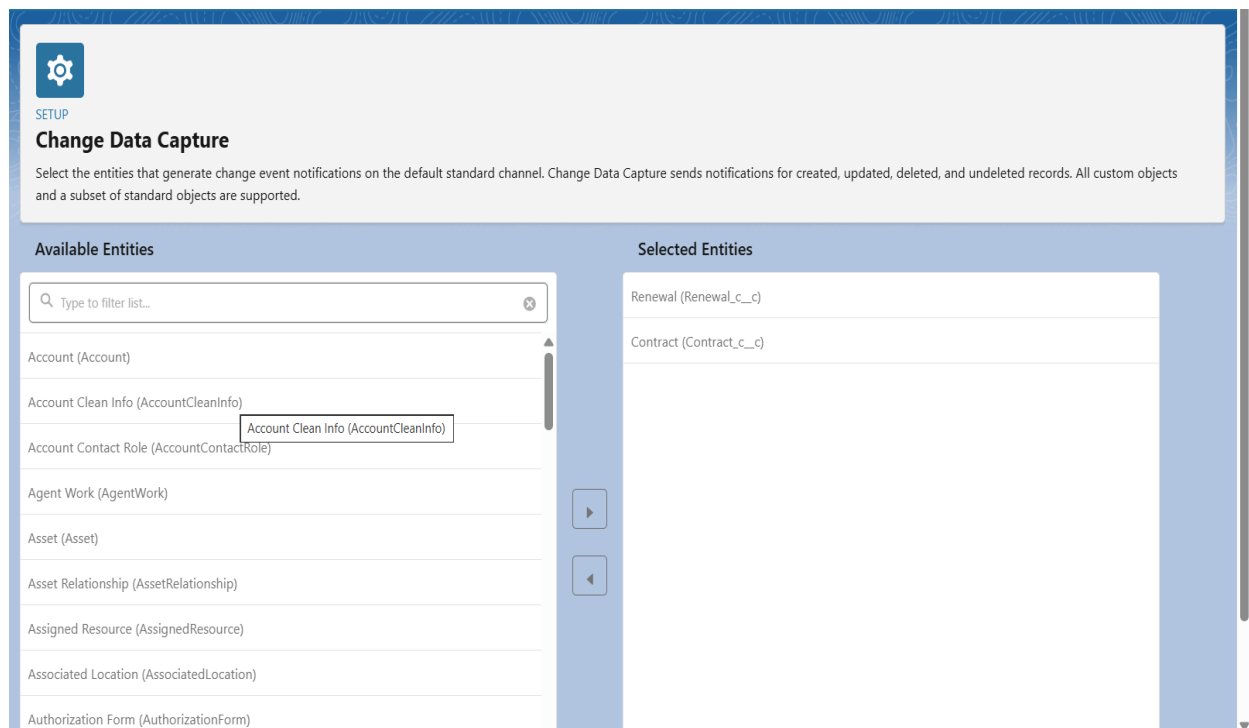
Action	Label	Deployed	Description
<a href="#">Edit</a>   <a href="#">Del</a>	Contract_Expired_Event	✓	

### 3. Change Data Capture (CDC)

Change Data Capture was enabled for the Contract\_\_c object to track real-time changes. This allows external and internal systems to subscribe to contract updates.

#### ✓ Steps Followed:

- Setup → Change Data Capture → Enabled for Contract\_\_c and Renewal\_\_c objects
- Subscribed to CDC channel using empApi in LWC to listen for record changes
- Verified real-time updates when contract status and renewal details were modified



## 4. Salesforce Connect

Salesforce Connect was considered for connecting external objects. While not mandatory for our implementation, it provides a way to view external system data in real-time without storing it in Salesforce.

✓ Steps Followed (Documentation Only for Future Scope):

- Setup → Salesforce Connect → Configure External Data Source
- Chose OData 2.0/4.0 protocol for connectivity
- Validated connection to pull sample external data into Salesforce as External Objects

The screenshot shows the Salesforce Setup interface for configuring an External Data Source. The page title is 'External Data Sources' under the 'SETUP' menu. The specific configuration is for 'Contract\_External\_Data'. Below the title, there is a description: 'Connect to another Salesforce org or a third-party database or content system.' and a link to 'Back to External Data Sources'. The configuration details are as follows:

Field	Value
External Data Source	Contract_External_Data
Name	Contract_External_Data
Type	Salesforce Connect: OData 2.0

Below the configuration details, there is a 'Parameters' section with the following settings:

Parameter	Value
URL	<a href="https://services.odata.org/V2/Northwind/Northwind.svc/">https://services.odata.org/V2/Northwind/Northwind.svc/</a>
Connection Timeout (Seconds)	120
Writable External Objects	<input type="checkbox"/>
High Data Volume	<input type="checkbox"/>
Server Driven Pagination	<input type="checkbox"/>
Request Row Counts	<input checked="" type="checkbox"/>
Compress Requests	<input type="checkbox"/>
Enable Search	<input checked="" type="checkbox"/>
Custom Query Option for Salesforce Search	<input type="checkbox"/>

## Conclusion

With Phase 7 completed, the system is now equipped with real-time integration capabilities using External Services, Platform Events, and Change Data Capture. Salesforce Connect was also documented as a future integration option. These configurations enable high scalability and prepare the solution for enterprise-grade adoption.