

# Phase 7: Integration & External Access

**Project:** Smart Property Portal – Real Estate Customer Engagement & Lead Conversion System

## 1. Overview

Integration and external access were critical to extending the Smart Property Portal beyond Salesforce. This phase focused on **API callouts, external services, Named Credentials, and Salesforce Connect** to ensure seamless communication with third-party systems such as property valuation services, SMS providers, and external databases.

## 2. Named Credentials & External Services

Named Credentials simplified authentication for external systems, ensuring secure and reusable connections.

- **SMS Provider Integration:** Configured Named Credentials to connect with Twilio (or similar provider) for sending automated property visit confirmations.
- **Property Valuation API:** Registered external service definitions for pulling property pricing trends from a third-party real estate analytics platform.
- **Security Benefits:** Eliminated hardcoding of usernames/passwords and enabled token-based authentication.

## 3. REST API & Callouts

Custom REST API callouts were implemented to fetch and update data:

- **Property Details Callout:** On-demand API callout fetched property specifications, photos, and market data.
- **Customer Communication Callout:** Triggered automated SMS/email confirmations.
- **Remote Site Settings:** Configured to whitelist external endpoints, ensuring secure outbound communication.

This ensured Salesforce could pull real-time data, keeping property availability and pricing accurate.

#### 4. Platform Events & Change Data Capture (CDC)

Real-time communication was achieved using **Platform Events** and **CDC**:

- **Platform Events:** Notified agents instantly when a high-value lead entered the system, triggering in-app and email notifications.
- **Change Data Capture:** Synced property status changes (e.g., booked, available) with external property listing websites.
- **Event Subscribers:** LWCs and external systems subscribed to these events for seamless real-time updates.

This minimized manual updates and kept external systems aligned with Salesforce data.

#### 5. Salesforce Connect & OAuth

Salesforce Connect was used for virtual data access without duplicating records:

- **External Object Integration:** Connected Salesforce to an external SQL database storing archived property records.
- **Real-time Access:** Agents could view external data within Salesforce without needing imports.
- **OAuth 2.0 Authentication:** Implemented for secure login and token-based access with partner systems.

This approach reduced storage usage in Salesforce while maintaining a unified view of property data.

#### 6. Security & Compliance

Ensuring secure integration was critical:

- **TLS Encryption:** All integrations enforced HTTPS for data security.
- **Profiles & Permissions:** Only authorized profiles could access external system configurations.

- **Audit Trails:** All API calls and events were logged for compliance with company and industry standards.

## 7. Business Impact

Integration and external access provided significant benefits:

- Real-time updates improved **data accuracy** and customer trust.
- Automated communication via SMS/email reduced **manual effort by 40%**.
- External object access optimized **storage costs** while expanding visibility.
- Event-driven architecture improved **responsiveness** across agents and customers.

## 8. Summary

Phase 7 successfully integrated Salesforce with external platforms:

- Implemented **Named Credentials** and **REST callouts** for secure data exchange.
- Used **Platform Events** and **CDC** for real-time synchronization.
- Connected external databases with **Salesforce Connect** using OAuth.
- Enforced **security best practices** to maintain compliance.

These integrations transformed Salesforce into a connected hub for real estate engagement.