
Phase 7: Integration & External Access - Summary
(Internal Project)

Project: Deepfake CRM: Intelligent Salesforce Integration Project

Reason: The Deepfake CRM project is currently internal, which means all data, processes, and workflows are managed entirely within Salesforce. There is no requirement for external APIs or third-party services at this stage.

If in the future the project becomes external, the following points would apply:

- **Named Credentials:**
Used to securely store authentication details (username, password, OAuth tokens) for external APIs. This ensures Salesforce can connect to third-party systems without exposing sensitive information in code. It simplifies management of credentials across multiple callouts and supports both single-user and per-user authentication.
- **External Services:**
Allows Salesforce to connect declaratively to external REST APIs by importing their OpenAPI/Swagger schemas. It automatically generates Apex actions for these APIs, reducing manual coding and enabling point-and-click integration for processes and flows.
- **Web Services (REST/SOAP):**
Salesforce can consume external APIs using REST or SOAP protocols. This is used to retrieve, update, or delete data on external systems. Apex classes handle callouts, responses, error handling, and ensure reliable communication between Salesforce and third-party systems.
- **Callouts:**
Enables Salesforce to send HTTP requests to external endpoints. Callouts are essential for fetching data from or sending data to external systems in real-time or batch processes. They can be synchronous or asynchronous and require proper security via Named Credentials or Remote Site Settings.
- **Platform Events:**
Platform Events allow Salesforce to publish events that external systems can subscribe to. This supports real-time integration, letting external applications react immediately to changes in Salesforce records without continuous polling.

- **Change Data Capture (CDC):**
CDC tracks changes (create, update, delete) on Salesforce records and allows external systems to subscribe to these events. It ensures external applications stay synchronized with Salesforce data in real-time, which is critical for analytics, reporting, or downstream processing.
- **Salesforce Connect:**
Provides real-time access to external objects such as databases or OData services. External data can be used like standard Salesforce objects in reports, dashboards, and Lightning pages. This avoids data duplication and allows seamless integration with external sources.
- **API Limits:**
Monitoring API usage is important to ensure that external integrations do not exceed daily or concurrent limits. Proper management prevents failures in callouts and ensures smooth operation of integrated systems.
- **OAuth & Authentication:**
External applications can securely access Salesforce data using OAuth 2.0 tokens. This provides a standardized way to authorize applications, issue access and refresh tokens, and maintain security during integrations.
- **Remote Site Settings:**
Required for Salesforce to communicate with external URLs. This ensures that all callouts are made to trusted endpoints, preventing unauthorized access and maintaining the security of Salesforce org.

Conclusion: Phase 7 is currently not applicable since the project is internal. These points provide detailed guidance for implementing external integrations in the future if needed.