Phase 7 — Integration & External Access (Demo / Mock Implementations)

Project: Revolutionizing Agriculture with AgriEdge Or-Mange Ltd — Salesforce OMS
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Status: Completed (integration components implemented as **simulations / mock callouts** suitable for a Developer Org; production connections require external API credentials and environment)

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1. Executive summary

This document lists everything created for **Phase 7: Integration & External Access**, describes the purpose of each artifact, where to find it in your org, how it was implemented (mock/demo mode), and how to verify and test it.
Important: Because a Developer Edition org does not typically have live external service credentials, the integrations were implemented as **mock / simulated** callouts and platform events to demonstrate the design and end-to-end flow. The document notes what to change for a production-ready integration.

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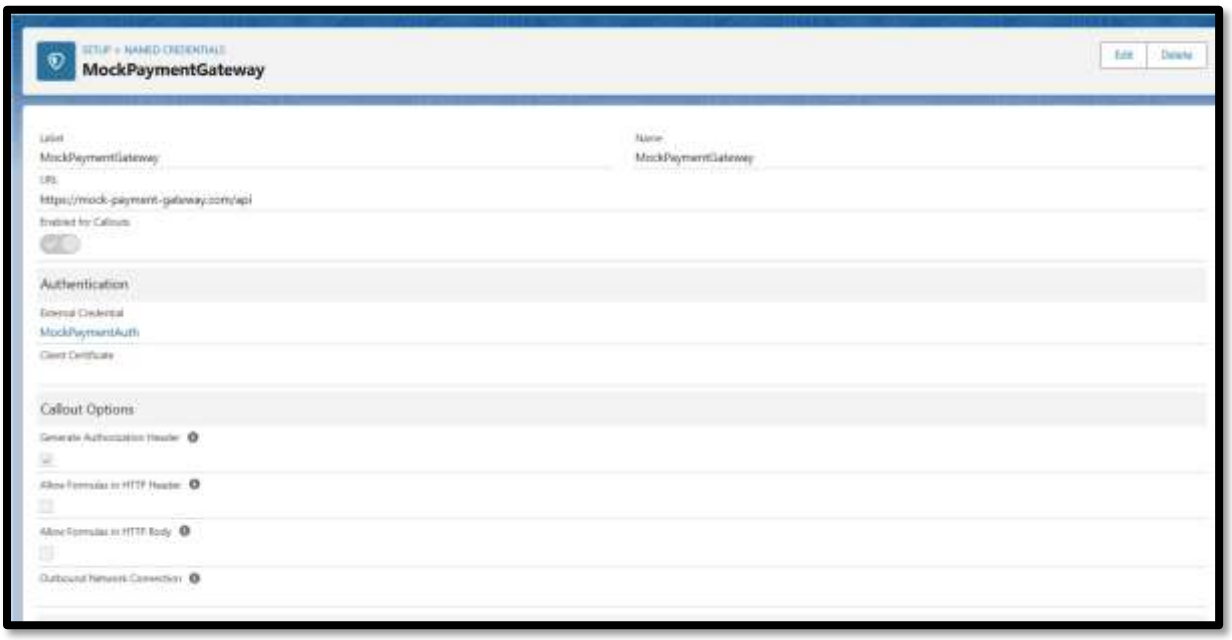
2. Summary of artifacts created (what was implemented)

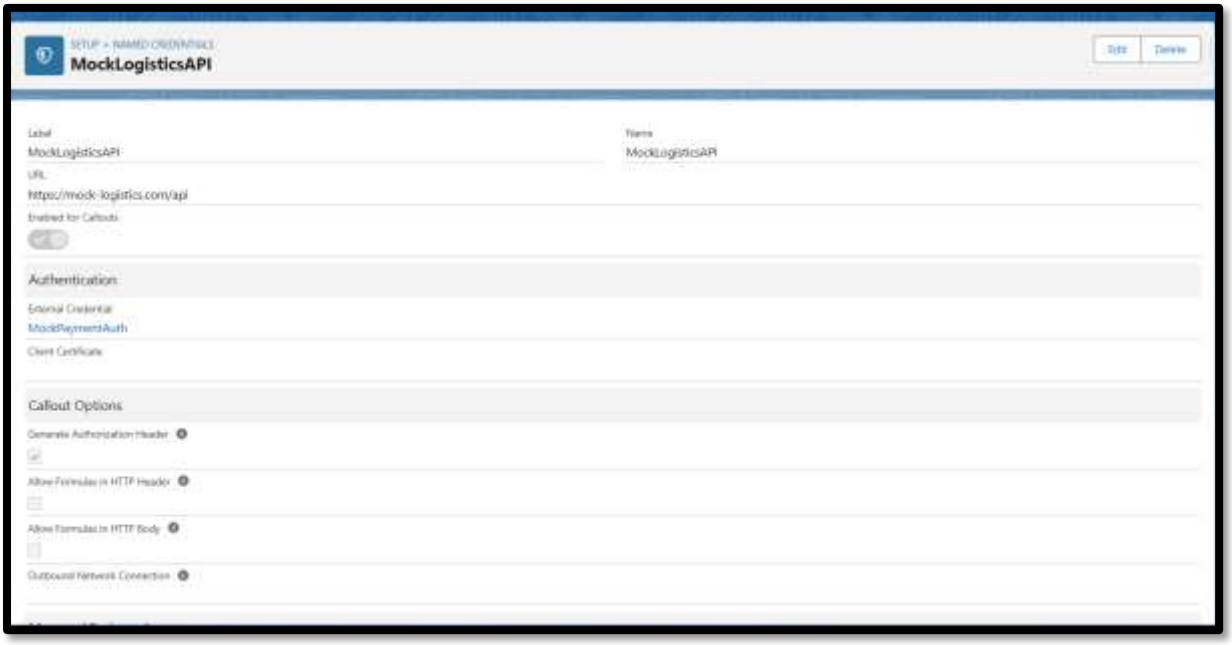
A. Named Credentials (mock endpoints)

- **MockPaymentGateway**
    - Purpose: Named credential for simulated payment gateway callouts.
    - Setup path: Setup → Security → Named Credentials → MockPaymentGateway
    - URL used (demo): https://mock-payment-gateway.com



- **MockLogisticsAPI**
    - Purpose: Named credential for simulated logistics partner callouts.

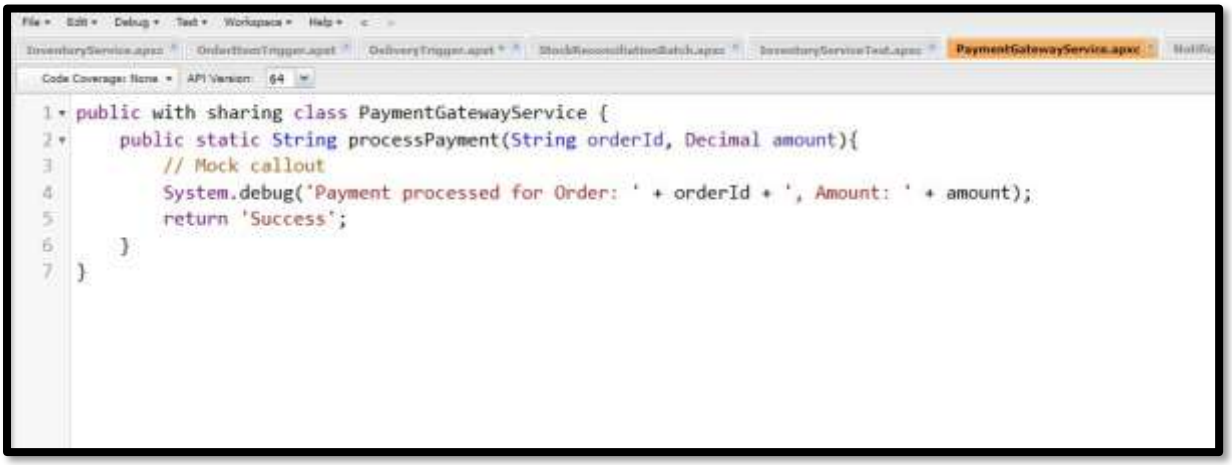
- Setup path: Setup → Security → Named Credentials → MockLogisticsAPI
- URL used (demo): https://mock-logistics.com/api



These are placeholders so Apex callouts use a central credential. Replace with real URLs and auth (OAuth, certificate, or API key) when moving to sandbox/production.

B. Apex Callout / Service Classes (mock implementations)

- **PaymentGatewayService** (Apex Class)
  - Purpose: Demonstrates how the app would call a payment gateway to process online payments.
  - Demo behavior: Logs a simulated success and returns 'Success'.



```
public with sharing class PaymentGatewayService {
    public static String processPayment(String orderId, Decimal amount){
        // Mock callout
        System.debug('Payment processed for Order: ' + orderId + ', Amount: ' + amount);
        return 'Success';
    }
}
```

- **LogisticsService** (Apex Class)

- Purpose: Simulated REST callout to logistics partner to fetch/update delivery status. Implemented as a future method to allow callouts asynchronously.
- Demo behavior: Updates Delivery__c.Status__c to a simulated value (e.g., Dispatched) and logs the operation.

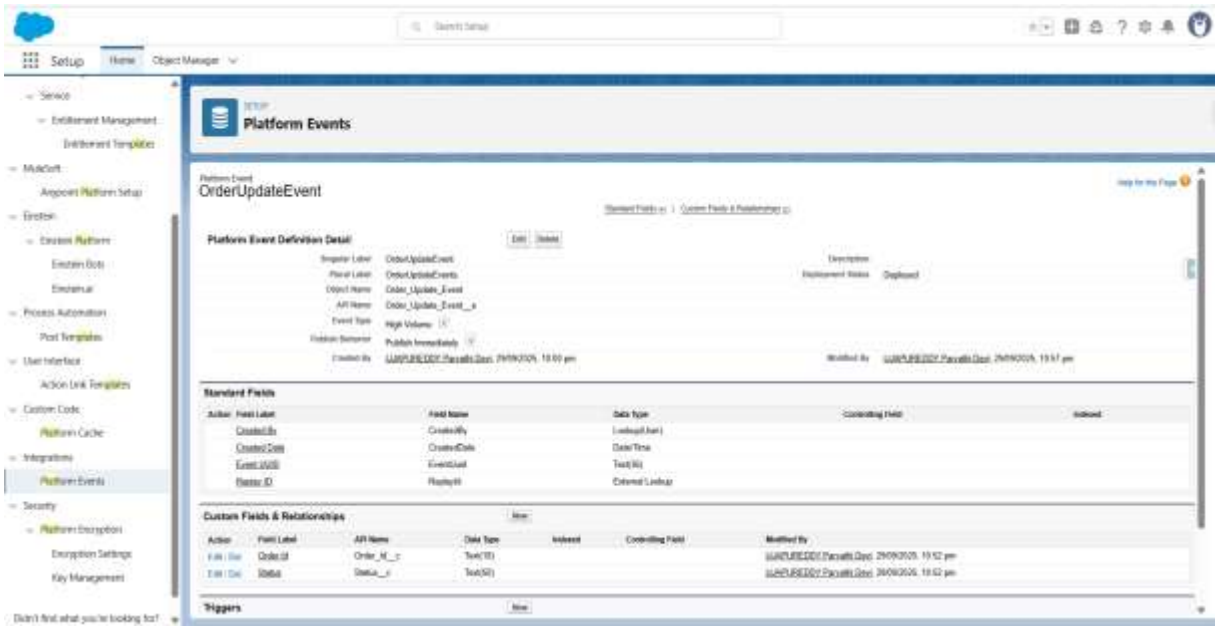
```
public with sharing class LogisticsService {
    @future(callout=true)
    public static void updateDeliveryStatus(String deliveryId){
        System.debug('Simulating API call to logistics for Delivery: ' + deliveryId);
        // Mock response
        String status = 'Dispatched';
        Delivery__c del = [SELECT Id, Status__c FROM Delivery__c WHERE Id=:deliveryId LIMIT 1];
        del.Status__c = status;
        update del;
    }
}
```

- **NotificationService** (Apex Class)
  - Purpose: Asynchronous notifications (SMS/WhatsApp/email) via @future methods. For demo, logs message content. For production, replace contents with HTTP callouts to Twilio/WhatsApp API or use middleware.


```
public class NotificationService {
    @future
    public static void sendSMS(String phone, String message){
        System.debug('SMS/WhatsApp sent to: ' + phone + ', Message: ' + message);
    }
}
```

C. Platform Event

- **OrderUpdateEvent__e** (Platform Event)
  - Fields: OrderId__c (Text), Status__c (Text)
  - Purpose: Publish events when Order status changes so multiple subscribers (Flows, external listeners) can react in near real-time.
  - Setup path: Setup → Platform Events → OrderUpdateEvent
  - Publisher: FireOrderEvent trigger (see below) publishes events when an Order status changes.



D. Apex Trigger to Publish Platform Event

- **FireOrderEvent** (Trigger on Order__c)
    - Purpose: On after update, if Order_Status__c changed, publish OrderUpdateEvent__e with new status.
    - Where to find: Setup → Custom Code → Apex Triggers → FireOrderEvent