**High-Level Technical Requirement (HL-TR)**

**Architecture Overview**

**A REST API will be developed and deployed on CloudHub (or hospital’s private cloud). This API will expose an HTTPS endpoint for the Patient Enrollment Portal.**

**When a new enrollment form is submitted, the API will validate the request, transform the payload, and insert it into the Patient Management Database.**

**Technology Stack & Components**

**Integration Platform: MuleSoft (or equivalent healthcare API gateway)**

**Deployment Environment: CloudHub / Private Healthcare Cloud**

**API Specification: RAML/OpenAPI**

**Database Connector: To connect and insert into the Patients table**

**Email Connector: To notify IT admins on failure**

**Source System: Patient Enrollment Portal (web/mobile)**

**Target Database: Healthcare Patient DB (PostgreSQL / Oracle Healthcare instance)**

**Technical Specs**

**Trigger Mechanism: API triggered upon enrollment form submission.**

**Security: Validate API calls using JWT tokens and encryption for PHI (Protected Health Information).**

**Authentication: DB credentials stored securely.**

**Data Transformation: Implement mapping from form fields to database schema using DataWeave.**

**Error Handling: Global error handler to log failures and trigger email alerts.**

**Logging: Mask sensitive data (e.g., SSN, Insurance ID) in logs.**