Discussion Guide: Lead Solutions Architect Responsibilities for Pharmacy/Prescription Portal

# Purpose

This guide is intended to facilitate a structured discussion between the Lead Solutions Architect, management, and the Enterprise Architecture team regarding the responsibilities, tasks, and governance processes for designing and delivering pharmacy and prescription systems within a large health insurance portal (e.g., CVS/Aetna).

# Core Responsibilities

The following key responsibilities are expected of the Lead Solutions Architect:

- Define the solution architecture vision aligned with enterprise strategy, product roadmap, and regulatory requirements (e.g., HIPAA, PCI, SOC2).

- Serve as the technical point of contact for pharmacy/prescription systems across lines of business (Commercial, Medicare, Medicaid, IFP, Voluntary).

- Design end-to-end solution architectures integrating Rx claims processing, prior auth, formulary, drug pricing (NDC, RxNorm), PBM integrations, eligibility, benefits, and member services APIs, front-end portals, and AI/ML models.

- Define API strategy (REST, GraphQL, FHIR, HL7) for backend services.

- Define data flows, event models, and streaming patterns (Kafka, Kinesis).

- Enforce enterprise architecture standards and ensure compliance with data governance, security, and cloud best practices.

# High-Level Tasks

The Lead Solutions Architect is expected to own and lead the following high-level tasks:

- Build and document current-state and target-state architectures (logical, physical, data, network, security).

- Define non-functional requirements (availability, scalability, latency, cost, observability).

- Lead architecture review boards and design reviews for pharmacy solutions.

- Design authentication/authorization flows (OAuth2, Cognito, Okta, custom SSO).

- Guide multi-cloud, hybrid, or on-prem considerations.

- Define and enforce CI/CD pipelines, DevSecOps patterns, and IaC templates (e.g., Terraform, CDK).

- Identify reusable architecture components (API gateways, event bridges).

- Drive observability architecture (logs, metrics, tracing).

- Define SLAs/SLOs for critical pharmacy APIs.

- Define data migration, cutover, and rollback strategies.

- Collaborate with product managers, security, compliance, data, and vendor teams.

- Drive vendor evaluation and selection for pharmacy ecosystem components.

- Communicate architectural trade-offs to stakeholders.

# Discussion Questions for Management & Enterprise Architects

- What guardrails and design authorities exist for pharmacy system architectures?

- How are cloud-native principles (e.g., serverless, microservices) balanced against legacy system realities?

- Are there mandates for specific frameworks (e.g., FHIR, HL7 for interoperability)?

- What is the policy on vendor-managed services vs. in-house solutions for core pharmacy flows?

- What is the governance process for introducing new APIs, data models, or event streams?

- How are security, compliance, and audit requirements reviewed and signed off for pharmacy APIs?

- What is the process for gaining leadership buy-in on new architectural patterns?

- How do we measure success metrics (availability, latency, error rates) for pharmacy services?

# Next Steps

Following this discussion, the Lead Solutions Architect should document agreed-upon processes, governance expectations, and deliverables. A follow-up action plan should be established to align architecture deliverables with organizational goals.