Pharmacy-Caremark Aetna Integration - Integration Framework

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Section 1: Introduction & Core Concepts

Description: This initial section serves as the foundation for the entire framework. It defines the key entities, services, and terms that will be used throughout the document.

Goal: To establish a common vocabulary and eliminate ambiguity, ensuring both the CVS Caremark provider teams and the Aetna consumer teams understand their roles and the components being discussed in precisely the same way.

1.1. Preamble

This document constitutes a framework agreement between the CVS Caremark service provider organization and the Aetna service consumer organization. It governs the technical integration, operational support, and lifecycle management of the pharmacy services provided herein. As both organizations are part of the larger CVS Health enterprise, adherence to this protocol is a shared commitment required for maintaining a healthy, predictable, and reliable partnership that ultimately serves our members.

1.2. Core Definitions

- **Service Provider:** The CVS Caremark entity that owns, develops, and maintains the pharmacy services.
- **Service Consumer:** The Aetna application or system that integrates with and utilizes the pharmacy services.
- **Service Contract:** The complete set of agreements between the parties, including this document and any related charters.
- **REST API Service:** A data-centric service providing access to core pharmacy business entities and operations via standard HTTP methods. For example, an API for fetching a member's prescription history or locating in-network pharmacies.
- **UX/Data Block Service:** A specialized service that provides a structured, pre-configured block of data intended for direct rendering within an Aetna member's user experience. For example, a data block containing all necessary information to display a member's current mail-order prescriptions and their refill status.

Section 2: Governance, Personnel, & Service Level Commitments

Description: This section defines the human layer of the partnership and the quality commitments for the service. It outlines key personnel roles, their responsibilities, the measurable standards for service availability and performance, and the specific communication protocols for different functional teams.

Goal: To create clear lines of responsibility, establish predictable communication pathways, provide the Aetna team with a formal commitment to service quality and support, and ensure that the right people are collaborating in the right way at the right time.

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2.1. Stakeholder Responsibility & Communication Matrix (RACI)

This matrix represents Aetna's proposed draft for the joint initiative. It is understood that CVS Caremark is ultimately responsible for assigning roles and responsibilities to its personnel in accordance with its own internal policies and procedures. This draft serves as a starting point for discussion to ensure alignment and clarity

KEY: R = Responsible, **A** = Accountable, **C** = Consulted, **I** = Informed, **x** = Out of Scope

Role/Stakeholder	Part 1: Joint Discovery & Definition (1-3 Day Working Session)		Part 2: Internal Assessment & Commitment (Weeks 1-3 Post-Discovery)		Part 3: Phase N - Planning & Execution
	Phase 1: Onboarding	Phase 2: External Refinement	Phase 3: Internal Refinement	Phase 4: Sizing & Assignment	Phase N: Execution
Aetna Product & Business	A/R	A	C	A/R	C
CVS Product & Business	A/R	A/R	I	I	C
Aetna Architecture	C	C	A/R	C	R
CVS Architecture	C	R	I	I	R
Aetna XD/Content	C	C	R	C	R
Aetna Engineering	C	C	A/R	R	A/R
CVS Engineering	C	R	I	I	A/R
Aetna QA/Data	x	x	x	C	R
PMO/Program Management	I	C	C	C	A

2.2. Service & Personnel Availability

2.2.1. Service Level Commitments (SLC)

The CVS Caremark team shall commit to the following service levels for all Production environments.

- **API Availability & Uptime:**
  - **Target:** 99.9% monthly uptime for all service endpoints.
  - **Exclusions:** Scheduled Maintenance, outages caused by the Aetna consumer systems, or failures of third parties beyond the Provider's reasonable control.
- **API Performance & Latency:**
  - **Target:** 95% of all internal API processing times will be completed in under 500ms. Latency is measured at the CVS Caremark network edge.
- **Support Response Times:**

Severity	Description (Examples)	Target Response Time	Channels
Severity 1: Critical	Complete outage of the eligibility check API, preventing real-time prescription processing.	**1 Hour (24/7/365)**	Phone call to On-Call Contact, Email
Severity 2: High	The mail-order pharmacy refill API is functional but responding with >5 second latency.	**4 Business Hours**	Support Portal, Email
Severity 3: Medium	The pharmacy locator API fails to return a small subset of newly added retail pharmacies.	**1 Business Day**	Support Portal, Email
Severity 4: Low	General questions about the data format for a field in the prescription history response.	**2 Business Days**	Support Portal, Email

2.2.2. Human Resource Availability

Both parties agree to make key personnel available during standard business hours (9:00 AM to 5:00 PM) in their respective time zones, Monday through Friday, to support joint projects and resolve complex escalations.

2.3. General Communications Protocols

- **Incident Management:** The Provider shall maintain a public Status Page. For Severity 1/2 incidents, the Provider will proactively notify the Aetna On-Call Engineering Contact.
- **Scheduled Maintenance:** The Provider will announce maintenance via the Status Page and email the Primary Technical Contact at least 72 hours in advance.

- **Lifecycle Announcements:** Versioning and retirement notices will be sent via email to the Primary Technical Contact.

Section 3: Feature Integration Lifecycle Framework

Description: This section replaces the previous Program Management framework with a more detailed, front-loaded process for feature intake, refinement, and execution. It establishes a formal framework for how the two organizations collaborate on all new service integrations.

Goal: To ensure that all joint initiatives are vetted, planned, and executed in a coordinated and transparent manner, mitigating risks and delivering on shared objectives.

Part 1: Joint Discovery & Definition (1-3 Day Working Session)

The first two phases are conducted as a single, intensive set of collaborative working sessions. The goal is to move rapidly from a high-level concept to a refined, actionable plan with clear ownership.

- **Phase 1: Feature Onboarding**
  - **Goal:** To establish a unified, cross-organizational understanding of the feature's business value, strategic intent, and high-level boundaries.
  - **Personnel:**
    - **Required:** Aetna Product Owner, CVS Product Owner, Aetna Lead Architect, CVS Lead Architect, Aetna Lead Engineer, CVS Lead Engineer.
    - **Optional:** Aetna/CVS Business Stakeholders, Aetna XD/Content Lead.
  - **Inputs:**
    - Business Case or Feature Proposal (Required, Joint).
  - **Outputs:**
    - A high-level Product Requirements Document (PRD) (Required for Phase 2, Joint).
  - **Responsibilities:**
    - Jointly present the feature concept, value proposition, and success metrics (Joint).
    - Co-author the high-level PRD (Joint).
    - Provide an initial "technical conscience" review, identify potential system impacts, and flag major architectural hurdles or risks (Joint).
- **Phase 2: Feature Refinement (External)**
  - **Goal:** To dissect the high-level requirements, identify specific provider-side (CVS) system impacts, and produce a formal, feature-specific RACI matrix to ensure clear ownership.
  - **Personnel:**
    - **Required:** Aetna Product Owner, CVS Product Owner, CVS Lead Architect, CVS Lead Engineer.
    - **Optional:** Aetna Lead Architect, Aetna Lead Engineer, PMO/Program Management.

    - **Inputs:**
        - High-level PRD from Phase 1 (Required, Joint).
    - **Outputs:**
        - A refined PRD with detailed requirements (Required for Phase 3, Joint).
        - A preliminary Dependency Matrix (Required for Phase 3, CVS).
        - A feature-specific RACI Matrix (Required for Phase 3, Joint).
    - **Responsibilities:**
        - Provide detailed clarification on requirements from the consumer perspective (Aetna).
        - Lead the session, drive the creation of the RACI matrix, and ensure all CVS impacts are captured (CVS).
        - Identify all impacted CVS APIs, services, and applications and provide initial, high-level effort estimates (CVS).

Part 2: Internal Assessment & Commitment (Weeks 1-3 Post-Discovery)

Following the joint discovery session, both organizations take the outputs for internal analysis, solutioning, and estimation. This period culminates in a formal commitment.

- **Phase 3: Feature Refinement (Internal - Aetna)**
    - **Goal:** For the Aetna technical teams to analyze the refined requirements, develop high-level solution options for the Aetna-side implementation, and generate a formal, detailed Intake Request for CVS.
    - **Personnel:**
        - **Required:** Aetna Lead Architect, Aetna Lead Engineer, Aetna XD/Content Lead, Aetna Product Owner.
        - **Optional:** PMO/Program Management.
    - **Inputs:**
        - Refined PRD (Required, Joint).
        - Dependency Matrix (Required, CVS).
        - RACI Matrix (Required, Joint).
    - **Outputs:**
        - High-level solution options for the Aetna implementation (Required for Phase 4, Aetna).
        - A formal **Intake Request** for CVS (Required for Phase 4, Aetna).
    - **Responsibilities:**
        - Conduct a deep-dive assessment and identify all impacted Aetna components (Aetna).
        - Develop 1-3 viable solution options for the Aetna implementation (Aetna).
        - Author the formal Intake Request, ensuring it includes detailed technical deliverables, operational support requirements, and the agreed-upon RACI matrix (Aetna).
- **Phase 4: Aetna Feature Sizing & Assignment**
    - **Goal:** To secure a formal commitment from CVS, provide a reliable size estimate for the Aetna-side work, and formally assign the feature to a Program Increment (PI).

    - **Personnel:**
        - **Required:** Aetna Product Owner, Aetna Scrum Team Leads.
        - **Optional:** Aetna Architecture, Aetna XD/Content, Aetna QA/Data, PMO/Program Management.
    - **Inputs:**
        - High-level solution options from Phase 3 (Required, Aetna).
        - A formally **"Accepted"** Intake Request from the CVS Product Owner (Required, CVS).
    - **Outputs:**
        - High-level T-shirt Sizing (S, M, L, XL) for the Aetna portion of the feature (Required for Phase N, Aetna).
        - Formal assignment of the feature to a target Program Increment (Required for Phase N, Aetna).
    - **Responsibilities:**
        - Review and formally accept or reject the Intake Request, thereby committing to the specified deliverables and support model (CVS).
        - Review the accepted request and internal solution options to provide a high-level T-shirt size (Aetna).
        - Upon receiving the accepted Intake and sizing, formally slot the feature into the appropriate PI (Aetna).

Part 3: Phase N - Planning & Execution

This section details the iterative process of building, testing, and releasing the integrated feature.

- **Sub-Phase: Joint PI Planning & Commitment**
    - **Goal:** To decompose the feature into stories, identify and align on cross-organizational dependencies for the upcoming PI, and establish a shared commitment to the PI goals.
    - **Personnel:** Required: Aetna & CVS Product Owners, Scrum Masters, and all members of the delivery teams.
    - **Inputs:**
        - Accepted Intake Request (Required, CVS).
        - Aetna PI Assignment (Required, Aetna).
    - **Outputs:**
        - Committed PI Objectives for both Aetna and CVS (Required, Joint).
        - An integrated PI plan (Required, Joint).
    - **Responsibilities:**
        - Participate in all relevant PI planning ceremonies (Joint).
        - Collaboratively identify and document dependencies (Joint).
        - Commit to PI objectives (Joint).
        - Facilitate dependency management (PMO).
- **Sub-Phase: Iterative Development & Integration**
    - **Goal:** To develop and deliver the required components in an iterative fashion, with continuous integration between Aetna and CVS systems.
    - **Personnel:** Required: Aetna & CVS Engineering, Architecture, and QA teams.

    - **Inputs:**
        - Committed PI Objectives and backlogs (Required, Joint).
    - **Outputs:**
        - Functioning software deployed to a shared integration environment (Required, CVS).
    - **Responsibilities:**
        - Deploy new service versions to the shared environment (CVS).
        - Continuously integrate with and test against deployed services (Aetna).
        - Adhere to the agreed-upon API contracts (Joint).
- **Sub-Phase: End-to-End Testing & Validation**
    - **Goal:** To ensure the integrated feature is functionally correct, performant, secure, and ready for a production release.
    - **Personnel:** Required: Aetna & CVS QA/Data, Engineering, and Product teams.
    - **Inputs:**
        - Feature-complete software in a production-like test environment (Required, Joint).
    - **Outputs:**
        - A completed E2E test report (Required, Joint).
        - Formal UAT sign-off from the Aetna Product Owner (Required, Aetna).
    - **Responsibilities:**
        - Create and execute a joint end-to-end test plan (Joint).
        - Conduct User Acceptance Testing (UAT) and provide sign-off (Aetna).
        - Provide support during all testing activities (CVS).
- **Sub-Phase: Coordinated Release & Hypercare**
    - **Goal:** To safely deploy the integrated feature to production with minimal member impact and provide elevated support immediately following the release.
    - **Personnel:** Required: Aetna & CVS Engineering, Product, PMO, and Support teams.
    - **Inputs:**
        - UAT sign-off (Required, Aetna).
        - A joint release plan (Required, Joint).
    - **Outputs:**
        - The feature live in production (Required, Joint).
        - A completed Hypercare report (Required, Joint).
    - **Responsibilities:**
        - Create and manage the joint release plan (PMO).
        - Provide dedicated "Hypercare" engineering resources for a predefined period post-launch to rapidly address production issues (Joint).

Section 4: Runtime Technical Protocol

Description: This section details the technical contract for all real-time, machine-to-machine interactions.

Goal: To ensure all data exchanges are secure, resilient, auditable, and performant by mandating specific technical standards.

- **Transport & Authentication Security:** All server-to-server communication must use Mutual TLS (mTLS) 1.2 or higher.
- **Observability & Distributed Tracing:** All API requests must carry a distributed trace context header (W3C Trace Context). Logs must be structured JSON.
- **Rate Limiting:** The Provider will enforce rate limits and provide real-time feedback via standard HTTP headers. The Aetna client must implement a backoff strategy.
- **Error Handling:** All 4xx and 5xx error responses must contain a standardized, machine-readable JSON body.
- **Pagination:** All API endpoints returning a collection must use cursor-based pagination.
- **Idempotency for Write Operations:** All state-changing requests (POST, PUT, DELETE) must include an `Idempotency-Key` header.
- **High-Reliability Webhooks:** Webhooks will be signed using HMAC-SHA256. The Provider guarantees at-least-once delivery; the Consumer must ensure idempotent processing.

Section 5: Service Evolution & Versioning

Description: This section provides a collaborative framework for managing the service lifecycle, including both breaking and non-breaking changes.

Goal: To enable continuous improvement in the CVS Caremark services while affording the Aetna consumer maximum predictability and lead time to adapt.

- **Versioning Philosophy:** All services must strictly adhere to Semantic Versioning (MAJOR.MINOR.PATCH).
- **Process for Breaking (MAJOR) Change:** Managed as a joint program with a minimum 6-month lead time, including joint design reviews, formal announcements, sandbox deployments, and a parallel run period.
- **Process for Non-Breaking (MINOR/PATCH) Changes:** Announced via release notes. Deployed to a sandbox environment at least 1 week prior to production.

Section 6: Service Retirement & Sunsetting

Description: This section provides a transparent framework for the final stage of a service's lifecycle.

Goal: To ensure the retirement process is executed as a planned, joint program of work, providing Aetna with maximum predictability and lead time to migrate.

- **Minimum Deprecation Duration:** 12 months for a complete service retirement; 6 months for a MAJOR version sunset.
- **Guarantees during Deprecation:** SLAs remain in effect. The service is feature-frozen.
- **Technical Measures:** Deprecated endpoints must return `Deprecation` and `Link` HTTP headers. Planned "brownouts" may be used in the final month to identify remaining dependencies.

- **Post-Retirement Response:** For at least 12 months post-retirement, requests to a retired endpoint must return an HTTP 410 Gone status code.

Section 7: Agreement & Signatures

Description: This final section serves as the formal execution of this framework.

Goal: To create a binding commitment from both parties to adhere to all protocols laid out in this document.

By signing below, the authorized representatives of the Service Provider and Service Consumer acknowledge that they have read, understood, and agree to be bound by the terms of this framework.

For CVS Caremark (Service Provider):

Signature: _____

Name: _____

Title: _____

Date: _____

For Aetna (Service Consumer):

Signature: _____

Name: _____

Title: _____

Date: _____

Appendix: Analysis of Process Gap Solutions

This appendix provides a comprehensive analysis of the solutions chosen to address the identified gaps in the feature integration process. It details the alternatives considered and provides a clear justification for why the selected options provide the most value.

- **Gap 1: Phase 1 - Feature Onboarding:** Key CVS technical stakeholders are frequently absent from initial onboarding meetings.
    - **Selected Solution:** Mandate the attendance of designated lead architects and engineering managers from both CVS and Aetna to act as a "technical conscience."
- **Gap 2: Phase 2 - Feature Refinement (External):** Sessions often proceed without necessary decision-making authority from CVS, and conclude without a formal agreement on roles.
    - **Selected Solution:** Make a feature-specific RACI Matrix a mandatory exit criterion for the phase, co-authored by both Product Owners.
- **Gap 3: Phase 3 - Feature Refinement (Internal):** The Intake Request to CVS is often too narrowly focused on delivery and fails to specify operational support requirements.
    - **Selected Solution:** Update the Intake Request template to include a mandatory "Support & Operations" section and require attachment of the agreed-upon RACI.
- **Gap 4: Phase 4 - Aetna Feature Sizing & Assignment:** Aetna proceeds with PI planning without a formal, documented commitment from CVS.
    - **Selected Solution:** Institute a hard gate: a feature cannot be slotted into an Aetna PI until the Intake Request has been formally "Accepted" by the CVS Product Owner.