**Gateway:**

**A Data-Driven Architecture for Regulatory**

**Compliance and Enrollment Growth**

Kate Herrick

Capella University

IT-FPX 4997: Capstone I

Site Supervisor: Mike Goettl

November 7, 2025

Executive Summary: Project “Gateway”

The Arborwood University Cost Calculator project, known internally as the "Gateway" project, was initially launched as a means of improving cost transparency during marketing efforts with the aim of improving enrollment growth. Market research suggests implementation of the cost calculator could yield revenue growth of up to $8.9 million in the first year against a planned spend of $425,000. However, with the realization that legal and regulatory liabilities could result from inaccurate cost estimates, the project’s focus was revised to focus on the development of a solution that also mitigated a critical regulatory and financial risk stemming from the institution's existing manual process for publishing student costs. An initial review of the potential architecture of the calculator, leveraging current-state processes, would violate the Single Source of Truth (SSOT) principle, relying on error-prone human data entry, which puts the organization in conflict with the mandates of Federal regulations.

The initiative's core objectives are threefold:

* To achieve absolute compliance and risk mitigation by embedding a thorough and non-negotiable legal/compliance review and approval gate into the project lifecycle.
* To enhance equity and transparency by ensuring data quality via an API integration to the student administration system.
* To further Arborwood’s efforts in technical modernization by eliminating technical debt through the deployment of a scalable microservice architecture on the Google Cloud Platform.

Scope, Milestones, and Timeline

The project scope is defined by two integrated deliverables: a new process and a new technology implementation. The new process involves the compliance gate, a mandatory legal checkpoint requiring formal approval from the Legal team for all calculation logic and data accuracy before development is initiated. The new technology involves the implementation of an API integration, a secure microservice designed to pull cost data directly from the administrative system.

The Gateway initiative is targeted for completion within twelve months (T+12), following a phased approach. The first critical deliverable, the Legal/Compliance Gateway milestone, is scheduled for T+6 months, where final use cases and data accuracy must be approved by the Legal team. This is followed by the API/Data Integration Build Completion at T+7 Months, signifying the development and 100% data validation testing of the integration layer. The project will conclude with production deployment and hand-off at T+12 Months, launching the compliant calculator.

Risk and Communication Strategy

The highest-priority threats to project delivery are subject-matter expert (SME) resource constraints and data integrity failure. These are actively mitigated by executive action and technical controls. Resource risks are addressed by a mandate via executive sponsorship that secures dedicated time from the administrative system SMEs. Data integrity is assured by the mandatory legal/compliance approval gateway and mandatory 100% automated integration testing.

Stakeholder communication is tailored by audience and frequency. The Steering Committee (Executive) will receive bi-weekly briefings focused primarily on risk register updates, resource concerns, and formal sign-off requests. Business stakeholders and others with a vested interest in the project’s outcome will be furnished with weekly status reports that furnish information about project health, timeline updates, deliverable status, and risk updates. Technical and development teams will hold daily meetings focused on integration, UI/UX development and testing. This disciplined communication structure ensures the critical link between regulatory compliance and technical execution remains transparent to all leaders, providing a clear and managed path to institutional compliance.