Domain Target State Architecture (DTSA) Template

1. Header Information (Governance & Control)

Field	Description
Domain	
Author / Owner	(Lead Architect name)
Version / Date	(Must be version controlled)
Review Cycle	(Quarterly refresh, major updates aligned to PI planning)
Approved By	(Domain Council / Enterprise Architecture Review Board (ARB))

2. Executive Summary (The Investment Case)

Current State Challenges

- **Keep Existing:** Fragmented data sources, manual reconciliations, legacy dependencies.
- **Additions:** High **Total Cost of Ownership (TCO)** due to legacy maintenance/ infrastructure, high latency for real-time data needs, and high cognitive load on engineering teams.

Future State Objectives

- **Keep Existing:** Timely filings, high data quality, compliance by design, reduced manual effort.
- **Additions: TCO reduction** via cloud-native refactoring, measurable improvement in **developer velocity**, and **compliance validation automated** via data lineage.

Business Value

- **Keep Existing:** Reduced regulatory risk, faster time to market, cost efficiency, improved trust.
- **Additions: FinOps Compliance** (Cloud cost predictability), **Platform Reusability Score** (faster time-to-market using shared components), and **Operational Resilience Score** (measured RTO/RPO improvements).

3. Business Context (Strategy & Constraint)

- **Regulatory Drivers:** (40-Act, 34-Act, Alternatives, IRS, SEC, ESMA, etc.).
- **Business Priorities:** (Reporting accuracy, speed, new product enablement, global expansion).
- **Stakeholders:** (Product, Operations, Compliance, Risk, Regulators, Finance/FinOps).
- **External Dependencies:** (TA modernization, enterprise data platform, fund accounting feeds).

4. Target State Principles (Mandate for Engineering)

1. **Data as a Product:** Data is governed, lineage-enabled, trusted, **and exposed as discoverable, high-quality data products via a Data Mesh/Fabric approach.**
2. **Cloud-Native & API-First:** Architecture is **Cloud-Native, API-First, and Event-Driven Architecture (EDA).** All services are designed for autonomous deployment (CI/CD) and **cost-optimized operation (FinOps awareness).**
3. **Reuse & Simplicity:** Reuse before rebuild (patterns, services, APIs, data models). Solutions must reduce the **cognitive load** on engineering teams.
4. **Security & Compliance by Design:** Compliance and security controls are automated and auditable.
5. **Resilience & Observability:** Solutions must be resilient, observable, and scalable. **All critical services must define and meet explicit Service Level Objectives (SLOs) for availability and latency.**

5. Target State Architecture Views (The Blueprint)

5.1 Business Capability View

- Capability heatmap showing current vs target maturity.
- Core capabilities: shareholder servicing, tax calculation, regulatory reporting, audit evidence.

5.2 Application & Service View

- Target system landscape (apps to be retired, modernized, introduced).

- Role of enterprise platforms (data hub, lineage tool, workflow systems).
- **API Catalog/Service Inventory:** Define *all* external and internal domain APIs (REST/GraphQL/gRPC). **API Contracts must be versioned, governed, and centrally documented.**

5.3 Data View

- Canonical data domains (shareholder, account, tax, fund, attribution).
- **Data Product Schemas:** Define the specific data products this domain owns, produces, and consumes.
- **Data Quality (DQ) Gateways** and **Lineage Traceability Points** required for regulatory reporting.
- Logical data model overview.

5.4 Integration View

- Event streams (Kafka), internal APIs, and secure batch feeds.
- External interfaces: transfer agent, fund accounting, regulator portals.
- Mandatory integration patterns (e.g., synchronous vs. asynchronous, bulk data transfer standard).

5.5 Technology / Infrastructure View (The Platform Contract)

- Cloud platforms (AWS, Snowflake, container services).
- **Platform Capabilities:** Explicitly list the reusable platform services being consumed (e.g., Enterprise Kubernetes, Shared Observability Stack, IaC Templates, Secrets Vault).
- Define the **required cloud tenancy model** (e.g., single vs. multi-account strategy, security boundaries).
- Security, encryption, identity, and access controls for the target environment.

6. Architectural Runway & Phasing (The Road Map)

- **Rename to Architectural Runway & Phasing:** Clearly outline the transition states.
    - **Phase 1 (Enablement/De-risking):** Focus on platform setup, data cleanup, establishing CI/CD pipelines, and retiring mandatory tech debt.

    - **Phase 2 (Migration/Value Delivery):** Focus on component migration and early business value realization (i.e., minimal viable product).
    - **Phase 3 (Optimization/AI):** Focus on TCO reduction, advanced automation, and integration of emerging technology (e.g., GenAI).

- **Sequencing Drivers:** Regulatory deadlines, system dependencies, business priorities, **and Architectural Readiness.**
- **Risks & Mitigations:** (e.g., legacy lock-in, data quality gaps). **Include a Regulatory Change Risk Impact Assessment (RAA)**: Define how quickly the target state can absorb a major, unforeseen regulatory change.

7. KPIs & Success Metrics (Outcomes & Accountability)

Metric Category	Key Performance Indicator (KPI)	Target Goal	Accountability
Cost & Efficiency	**TCO/Cloud Cost per Business Unit** (e.g., per account, per filing, or per user)	X% YOY reduction	Lead Architect/ FinOps
Resilience & Quality	**Service Level Objective (SLO) Attainment** (e.g., 99.95% availability/latency).	Must meet defined SLOs	Engineering Leadership
Speed & Reuse	**% of New Features Leveraging Approved Patterns** (i.e., measuring platform and API reuse).	80%	Product Management/ SA
Risk & Compliance	**Proactive Assurance Score** (zero material audit findings; 100% data lineage traceability).	100%	Lead Architect
Operational Impact	**% Reduction in Operational Exceptions/ Manual Hand-offs** (the cost of bad data/poor design).	50% reduction	Operations/ Domain Owner

8. Governance & Ownership

- **Domain Owner:** (business executive accountable for the domain's function)
- **Lead Architect:** (Accountable for the integrity and TCO of the target state)
- **Review Forums:** Domain Council, ARB, Compliance Review, **FinOps Working Group**
- **Update Cadence:** Quarterly refresh, major updates aligned to PI planning.