



shopify

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Data & AI Build a **Competitive Moat**

1

Faster Innovation

2

Higher Merchant ROI

3

Recurring Platform Fees

Combining these advantages strengthens Shopify's market leadership and merchant loyalty.



Transformative Impact of Real-Time AI



Kafka Streams

5% increase in customer retention,
resulting in a ~\$8 million boost
annually



Vector-Powered Recommendations

\$4M external revenue

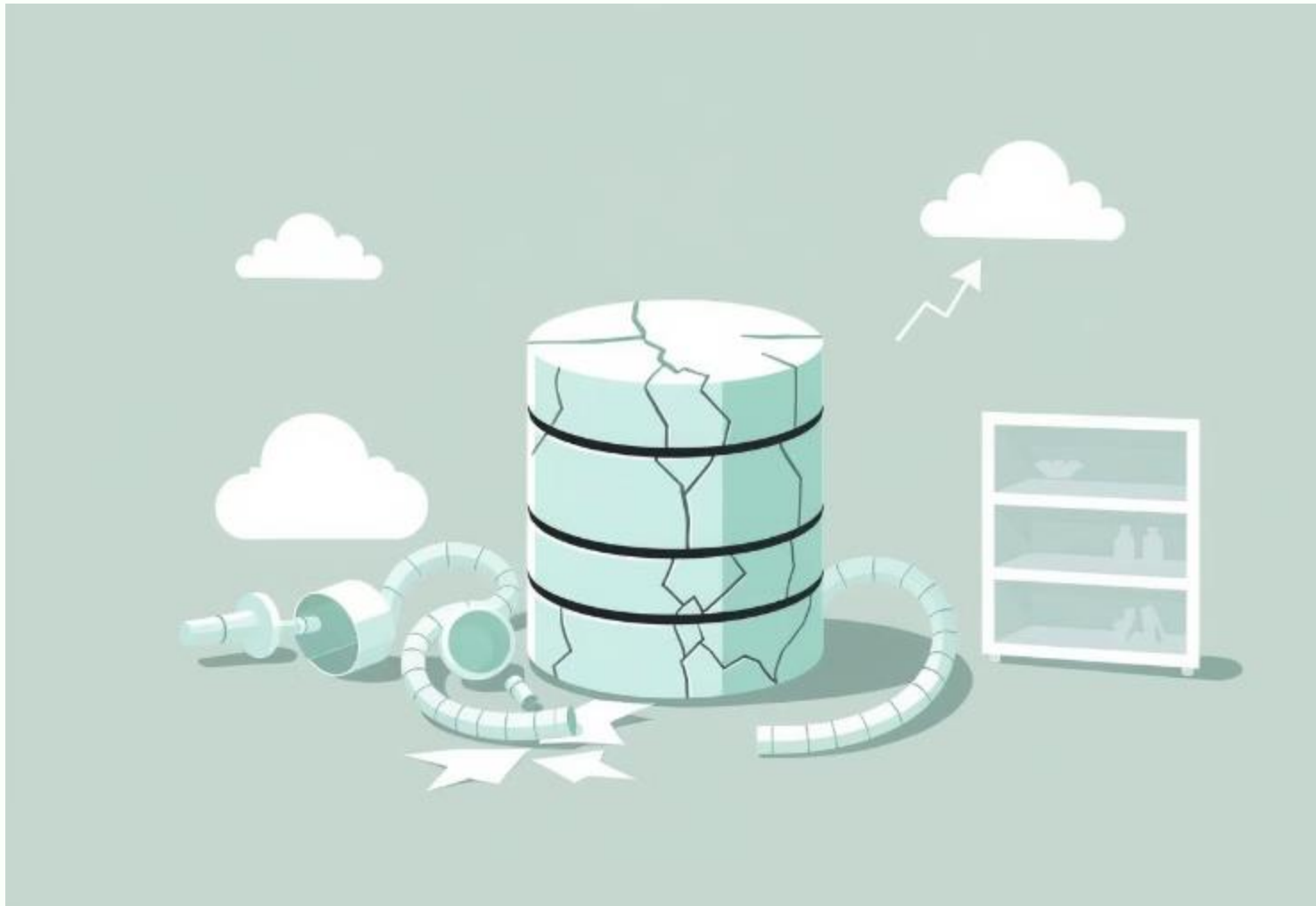


New Revenue Stream

Driving Over 15% EBIT Growth

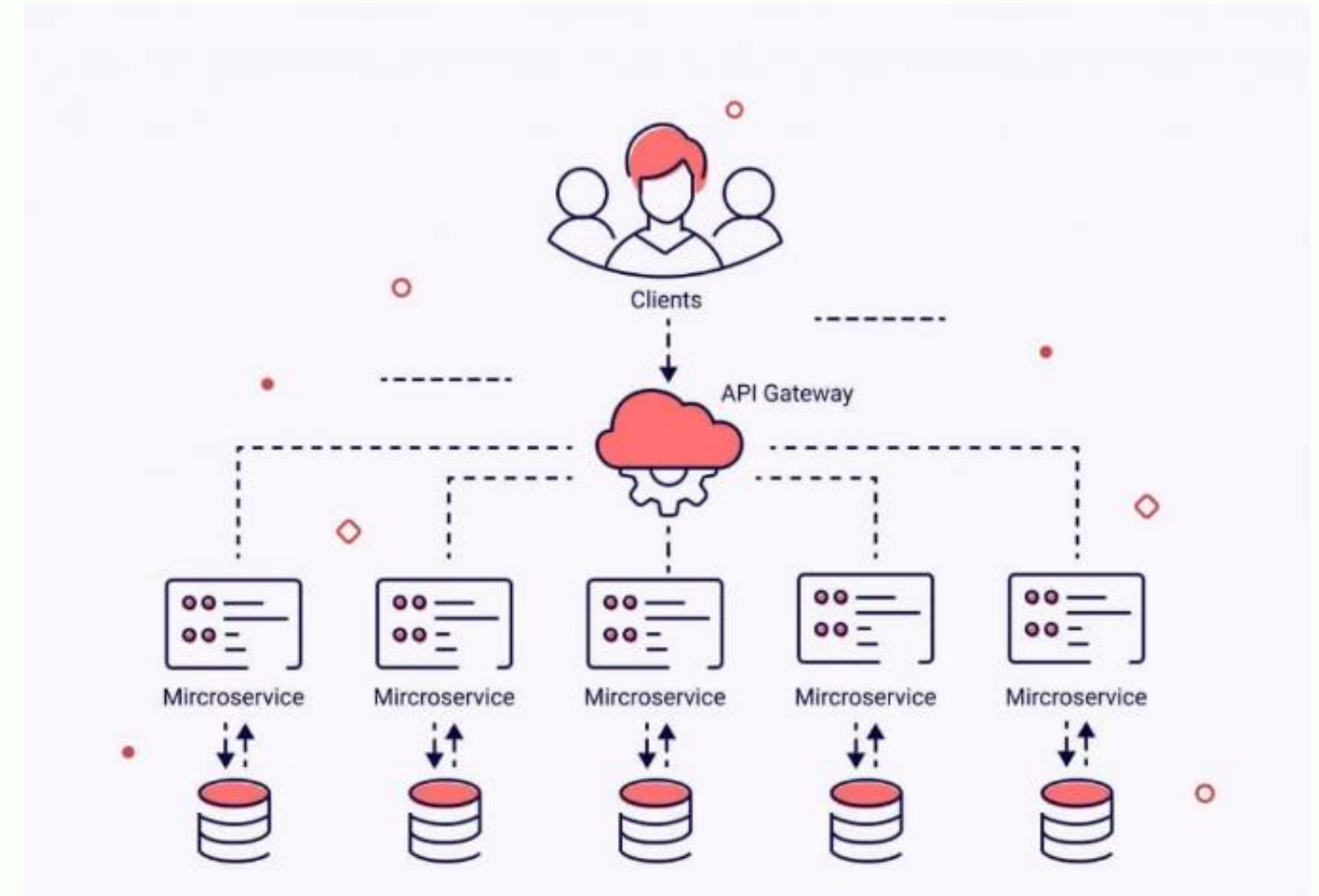
Monolithic Stack to Lakehouse & Feature Store

Current State



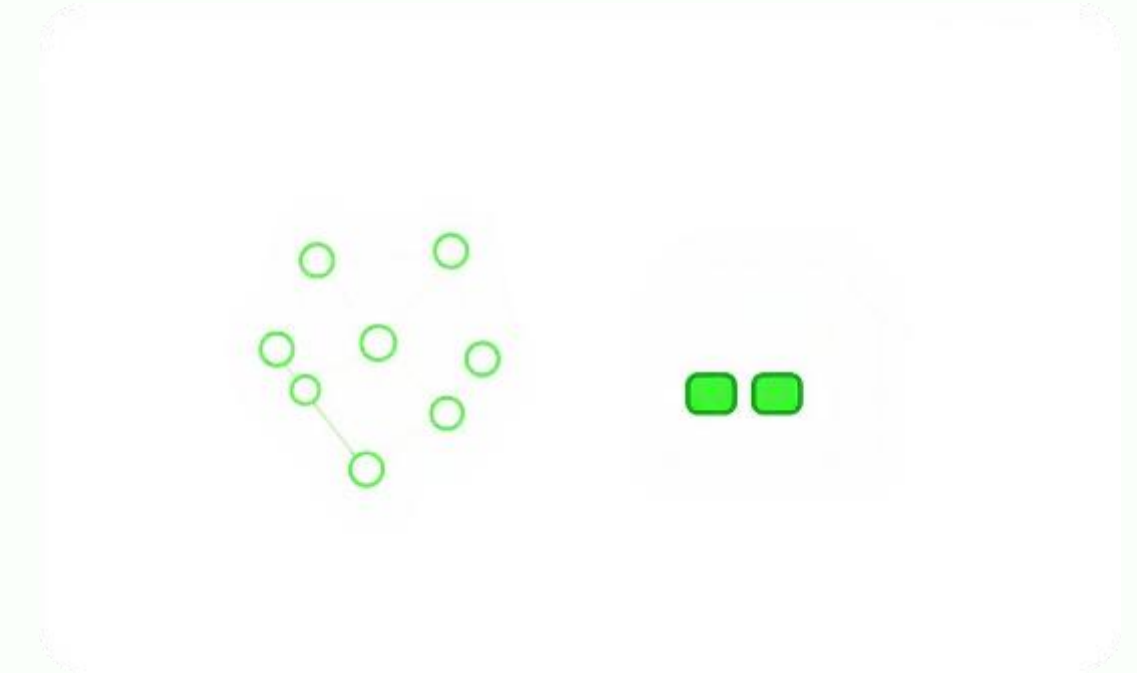
- Batch ETL jobs
- No catalog
- No feature store

Target State



- Real-time streams
- Governed lineage
- Consistent ML features

Three High-Impact Pilot Use Cases



Churn Prediction

\$8M/yr value, fresh scores boost retention

Self-Service Analytics

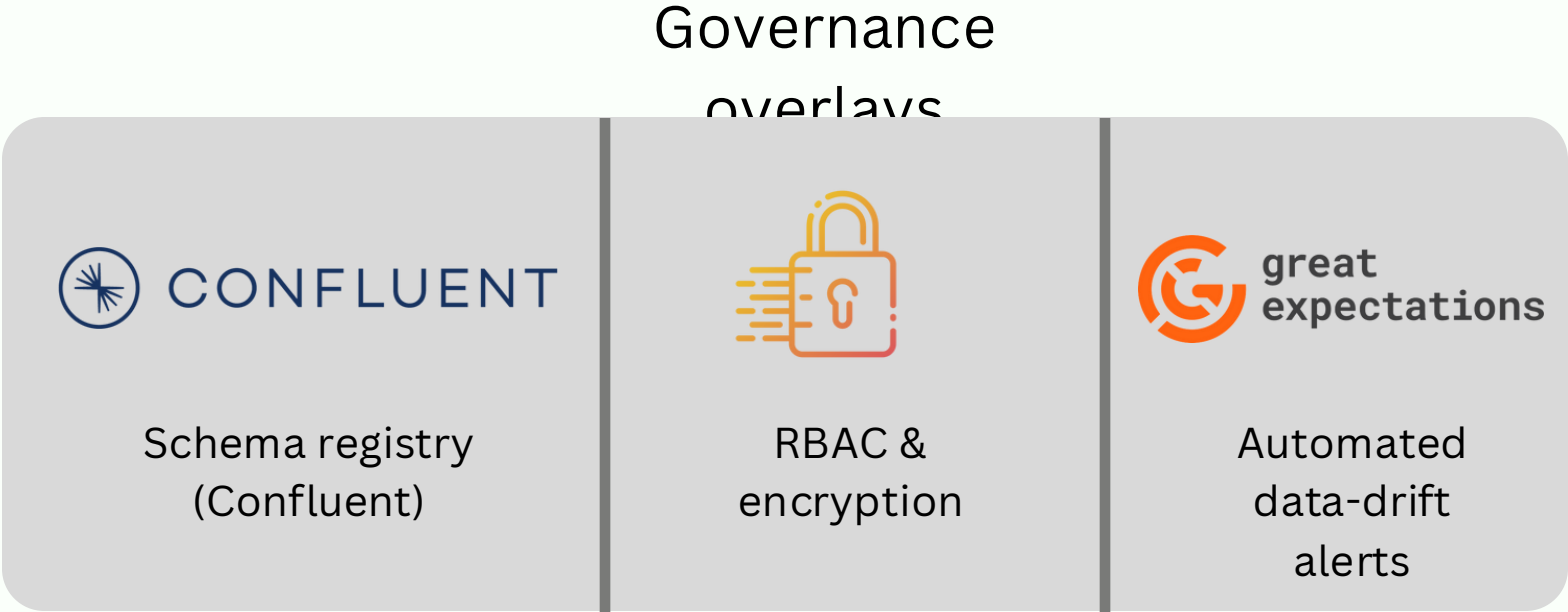
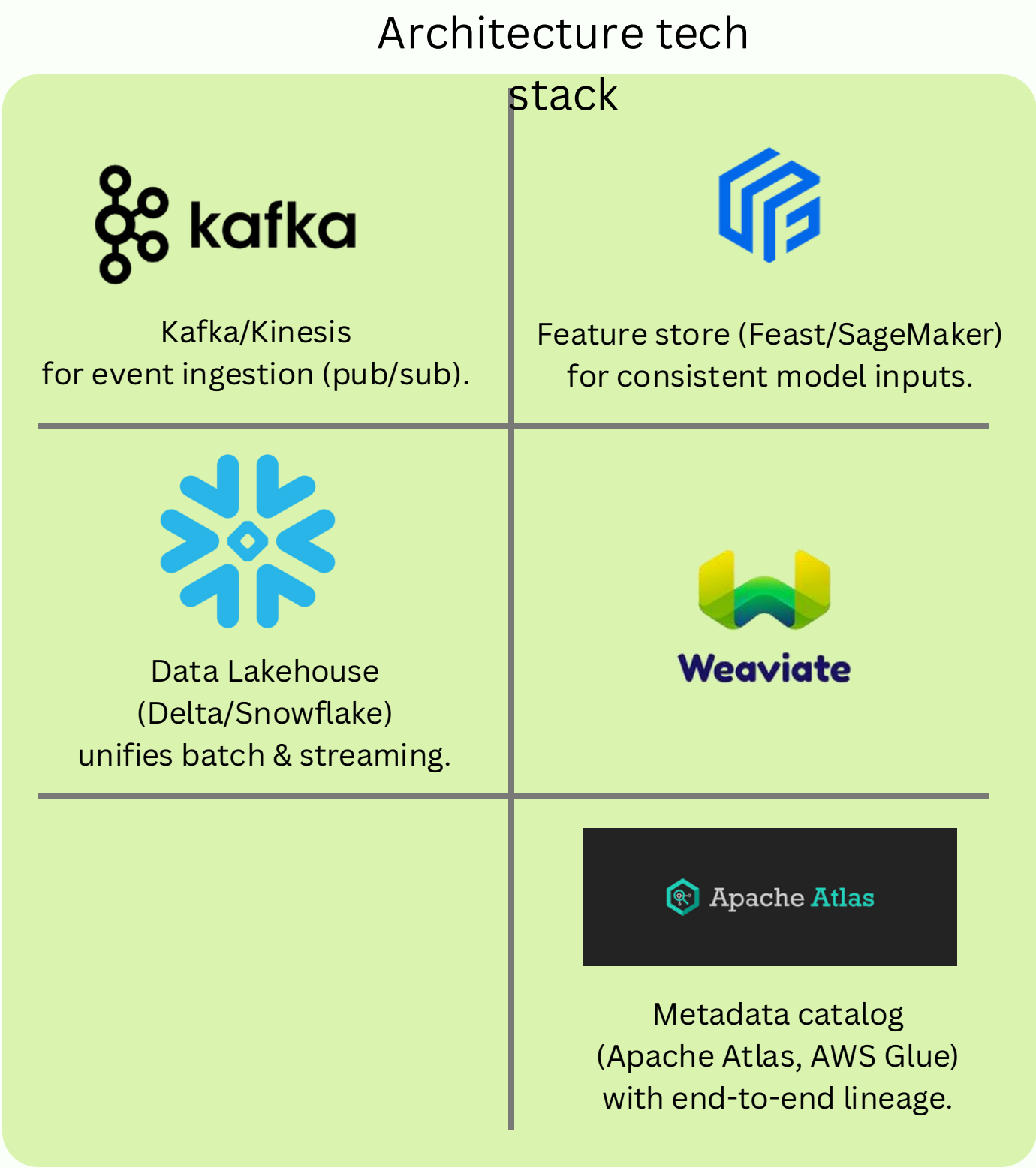
\$1.2M savings, sub-second queries for 1000+ users

Commerce Intelligence API

\$4M revenue, stable contracts, fast time-to-market

Unlocking over \$13 million in value!

Overview of the Data & AI Foundation of **architecture and governance overlays**

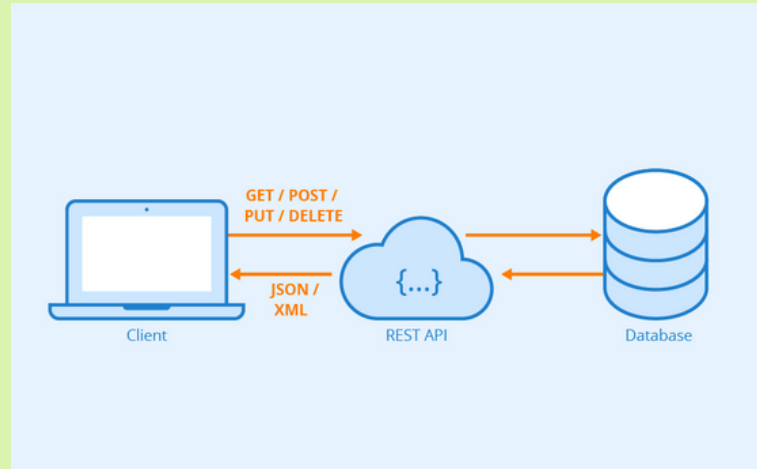


A governed Lakehouse fosters trust—
teams spin up new analytics products without lengthy vetting.

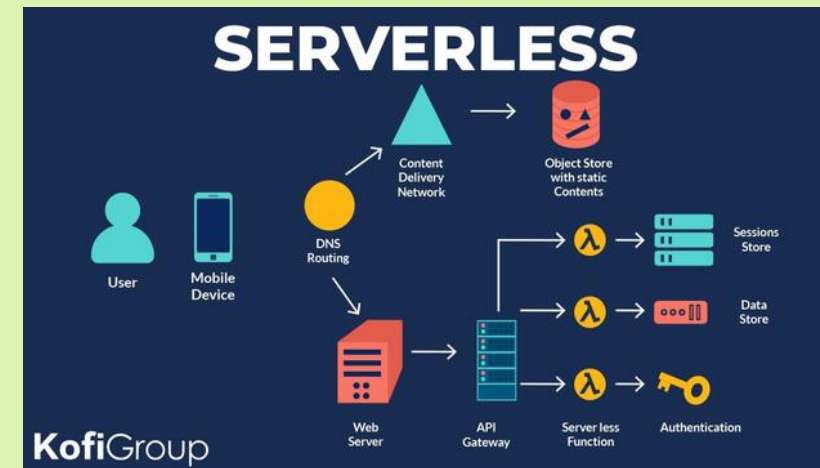


Feature store + drift detection—
cuts model breakage by 70 %, preserving ROI on AI investments.

We proposed these **Product Portfolio & Packaging**, and governance, value to our end-users



REST-ful API gateway (Kong/Apigee) for controlled external access.



Serverless functions (AWS Lambda) for event-driven alert generation.



Embeddable UI components (React + shadcn/ui) for consistent dashboards.

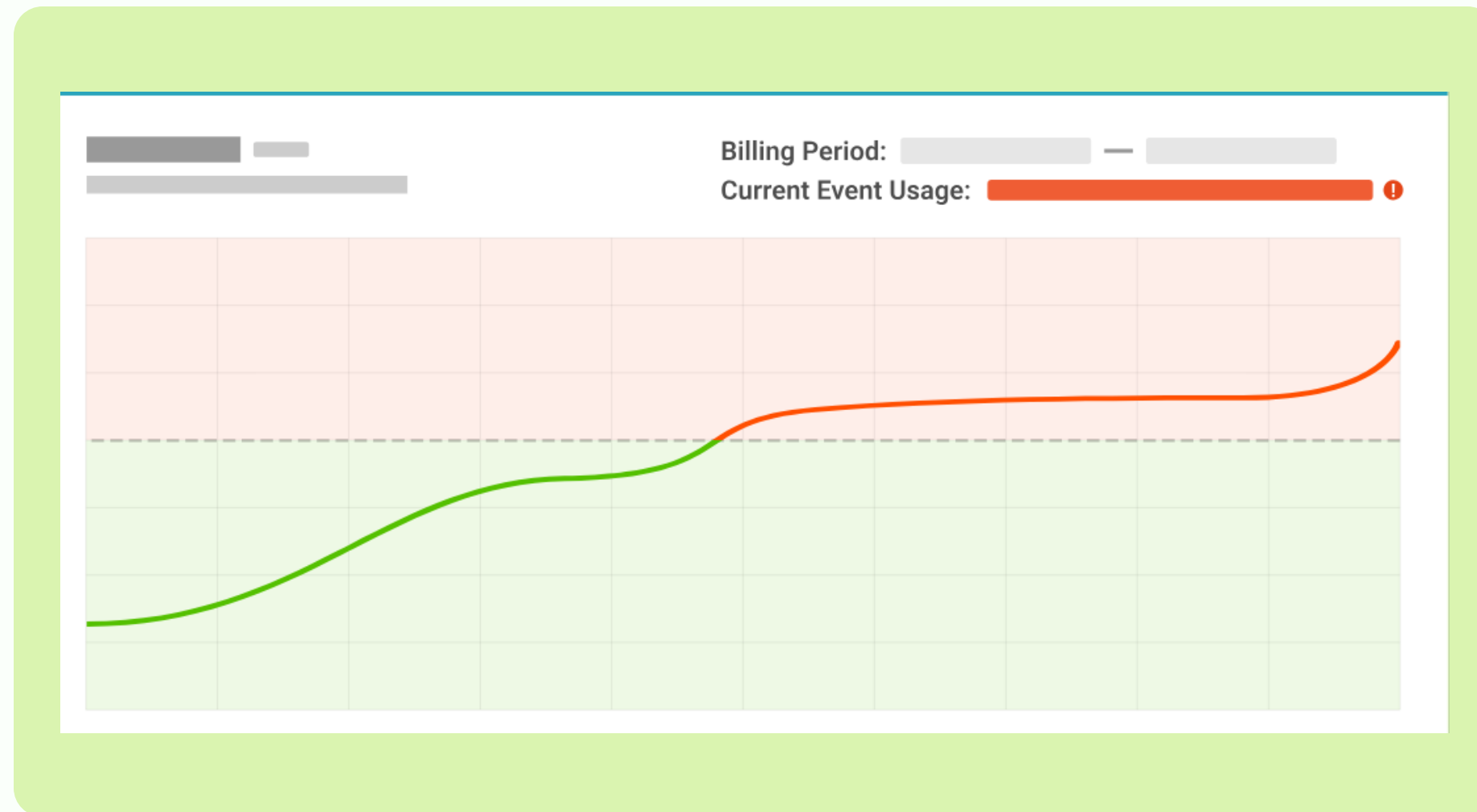
Governance & value

API gateway enforces quotas, rate limits, and request-level auditing (security/compliance)

Serverless alerts scale to zero when idle (cost-efficient, measurable ROI)

Shared UI components give consistent UX and reduce dev effort by 30 %.

API billings allow us to **monetize** value from end-users



- 1 Usage-based billing:**
via Stripe metered billing integration on API calls
- 2 Tiered compute:**
charge more for real-time streaming access vs. daily batch exports.

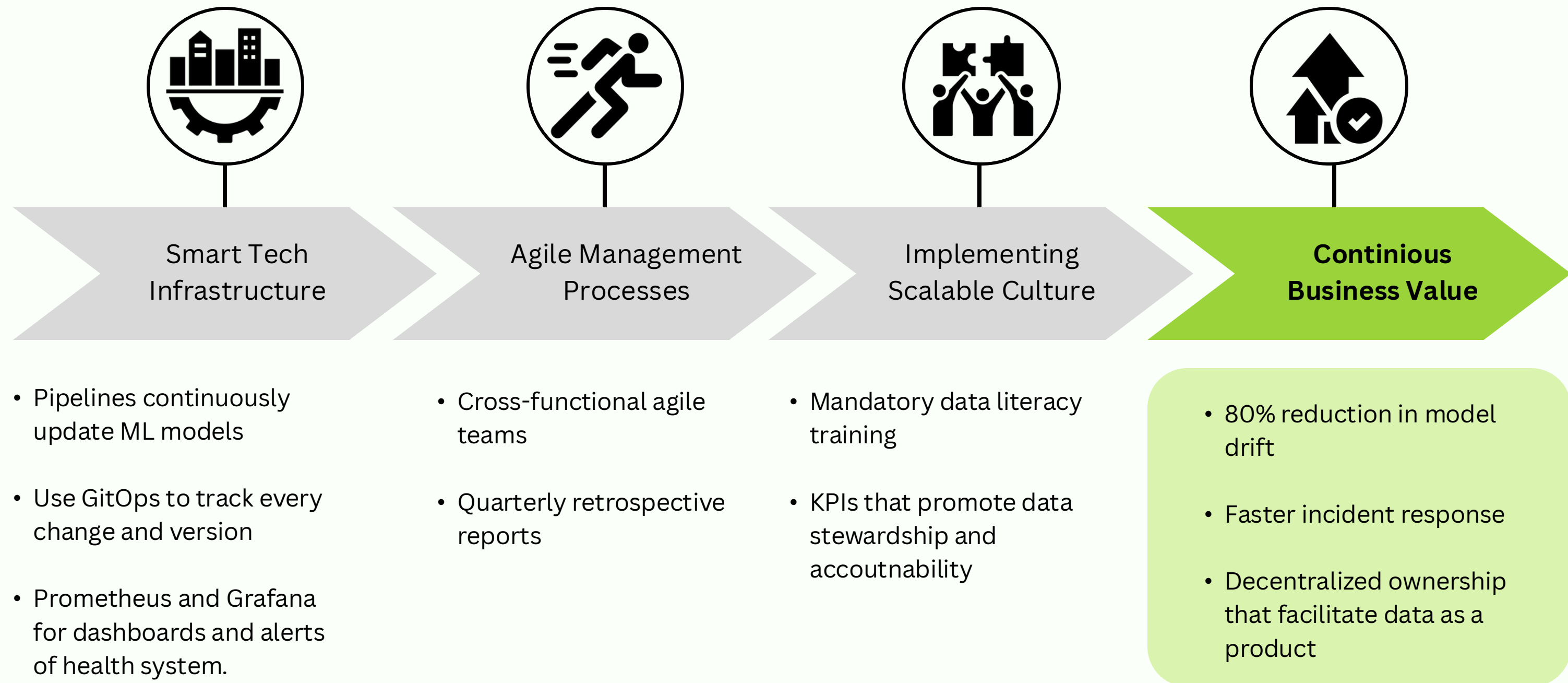


Metering requires precise event logging and audit trails (data governance must track every API call).



Data lineage ensures you can trace paid outputs back to compliant data sources—critical for external SLAs.

Having the right foundations and processes will **mitigate potential challenges** and **secure continuous value** creation from **Data and AI**



The **proper AI Strategy** can uplift an **accelerate** most parts of **business operations**



Time-to-Insight:

70% faster reporting (48 hrs - 6hrs)



Decison Agillity

30% quicker management reactions



**Data
Trust**

GDPR and CCPA complaince



Productivit

30% **y** less development time
engineering new tools



Adoption

80% business users certified in year 1



**Innvoation
Velocity**

Exponential increase in
complementary new product

Shopify’s AI straetgy will achieve an 800% return on its Data and AI investment

API Subscriptions	\$181M/ year
Premium Analytics	\$91M/ year
Chrun reduction	\$362M/ year by 5% reduction
Analytics Efficiency	\$54M/ year through 20% productiviyt gains
Serverless Scaling	\$22M/ year

Implementaion Cost:

\$90M

\$740M
Annual Value



Q&A

Appendix

Revenue Uplift Assumption

Research Basis:

- Personalization Lift: McKinsey finds that personalization most often drives 10–15 % revenue uplift (company-specific spans 5–25 %) McKinsey & Company Business Chief.
- Omnichannel Personalization: McKinsey’s “Next in Personalization” report observes 5–15 % lifts in revenue and 10–30 % marketing-spend efficiency McKinsey & Company.
- E-commerce Benchmarks: Fast-growing e-tailers report up to 40 % more revenue from personalization contentful.com.
- Process
- Surveyed leading research (McKinsey, industry blogs) on revenue uplift ranges.
- Averaged the mid-points of 10–15 % ($\approx 12.5\%$), then selected a slightly conservative 6 % adoption-adjusted uplift to account for staggered roll-out and learning curves.
- Formula

$$\text{Revenue Uplift} = \text{Base Revenue} \times \text{Uplift \%} = \$8,880 \text{ M} \times 6\% = \$532.8 \text{ M}$$

(Base Revenue: Shopify FY 2024 revenue of \$8.88 B)

Cost Savings Assumption

Research Basis:

- Generative AI Productivity: McKinsey estimates generative AI can boost sales productivity by 3–5 % of sales expenditures McKinsey & Company.
- Serverless Efficiency: AWS + Deloitte find serverless provisioning time is 68 % faster, cutting upfront and monthly costs by up to 68 % per application Amazon Web Services, Inc..
- Compute Savings Plans: AWS Lambda Savings Plans can save up to 17 % on compute costs Amazon Web Services, Inc..
- Marketing-Spend Efficiency: Personalization can lift marketing ROI by 10–30 %, freeing budget for other uses McKinsey & Company.
- Process
- Combined projected gains from AI-driven productivity, serverless cost reductions, and analytics efficiency.
- Weighted each source conservatively (e.g., taking lower bounds) and settled on a 2 % total cost-savings of revenue.
- Formula

$$\text{Cost Savings} = \text{Base Revenue} \times \text{Savings \%} = \$8,880 \text{ M} \times 2\% = \$177.6 \text{ M}$$

(Base Revenue: Shopify FY 2024 revenue of \$8.88 B)

$$\begin{aligned}\text{Total Impact} &= \text{Revenue Uplift} + \text{Cost Savings} \\ &= \$532.8 \text{ M} + \$177.6 \text{ M} \\ &= \$710.4 \text{ M}\end{aligned}$$

Non-Monetary Benefits (Context for Assumptions)

- Time-to-Insight: 70 % faster report cycles (48 hr→<6 hr) contentful.com
- Developer Productivity: 30 % effort reduction with feature stores & shared UI libs
- Model Reliability: Drift detection cuts breakages by 70 % McKinsey & Company
- Key References
- McKinsey on personalization lift (10–15 %) McKinsey & CompanyBusiness Chief
- McKinsey on marketing-spend efficiency (10–30 %) McKinsey & Company
- Maverick on e-commerce personalization (40 %) Maverick Email Marketing
- Shopify FY 2024 revenue (\$8.88 B)
- Shopify FY 2024 EBITDA (\$1.111 B) McKinsey & Company
- McKinsey on generative AI sales productivity (3–5 %) McKinsey & Company
- AWS/Deloitte on serverless provisioning savings (68 % faster) Amazon Web Services, Inc.
- AWS Lambda Savings Plans savings (17 %) Amazon Web Services, Inc.
- Exploding Topics on personalization ROI (40 %) Exploding Topics
- Business Insider on Netflix recommendation value (\$1 B)