

Executive Case Study

Verizon Establishes Enterprise-Scale Data Trust on BigQuery with FirstEigen DataBuck

Executive Summary

Verizon, one of the world's largest telecommunications providers, operates a highly complex, data-intensive environment supporting enterprise analytics, reporting, and AI initiatives. As Verizon standardized on BigQuery as a core analytics platform, ensuring trustworthy data at scale became a board-level and executive priority.

With thousands of analytical tables, high-volume pipelines, and a hybrid data landscape spanning Google Cloud, Cloudera, and Teradata, traditional data quality approaches – built on static rules and extract-based processing – proved insufficient.

Verizon selected FirstEigen DataBuck to operationalize data trust directly inside BigQuery, enabling scalable, high-performance, and precise data quality while integrating trust signals into Dataplex for real-time governance and visibility.

Business Context

Verizon's data organization supports a wide range of critical use cases including enterprise analytics, executive reporting, customer and network intelligence, operational monitoring, and advanced analytics and AI initiatives.

As BigQuery became the analytical backbone for these workloads, Verizon's leadership recognized that data quality could no longer be an afterthought. Trust needed to be measurable, visible, and operationalized across the entire data lifecycle.



Key Challenges

1

Scale and Complexity – Thousands of BigQuery tables across multiple domains required consistent, enterprise-grade data quality coverage.

2

Performance Sensitivity – Data quality checks could not slow down production analytics or introduce additional data movement.

3

Alert Fatigue – Traditional rule-based tools generated excessive false positives, eroding confidence in data quality alerts.

4

Hybrid Data Landscape – Critical data pipelines spanned multiple platforms, including BigQuery, Cloudera, and Teradata.

5

Governance and Transparency – Executives and stewards needed real-time trust signals embedded directly into the data catalog.

6

Root Cause Visibility – Teams required rapid root cause analysis tied to lineage and pipeline execution metadata.

Why FirstEigen DataBuck



Enterprise Scalability

Seamless data quality coverage across thousands of BigQuery tables.



In-Situ Performance

100 million records validated in under 90 seconds with no impact to SLAs.



Context-Aware Precision

Approximately 90% reduction in false alerts through intelligent rule recommendations.



Multi-Platform Coverage

Unified trust framework across BigQuery, Cloudera, and Teradata.



Cross-Platform Reconciliation

Ensured completeness and accuracy across systems.



Native Dataplex Integration

Real-time trust scores published directly into Dataplex.



Accelerated Root Cause Analysis

Correlation of lineage, job logs, and validation results.

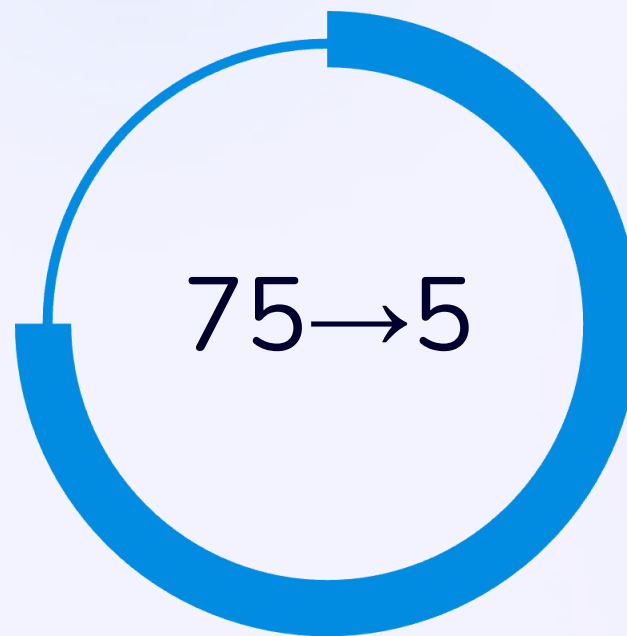
Business Outcomes



20K+

Tables Monitored

Monitoring established for 20,000+ tables in less than 6 weeks



75→5

Daily Errors Reduced

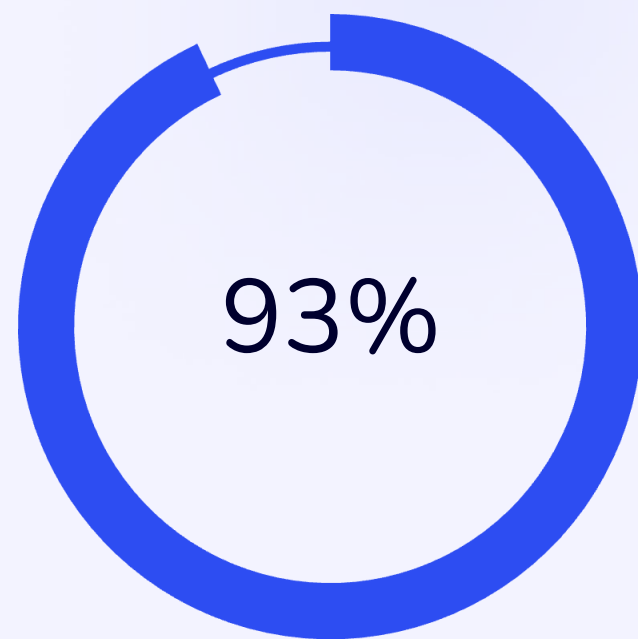
Business stakeholder-reported errors reduced from ~75 per day to ~5 per day



12→0

Finance Errors Eliminated

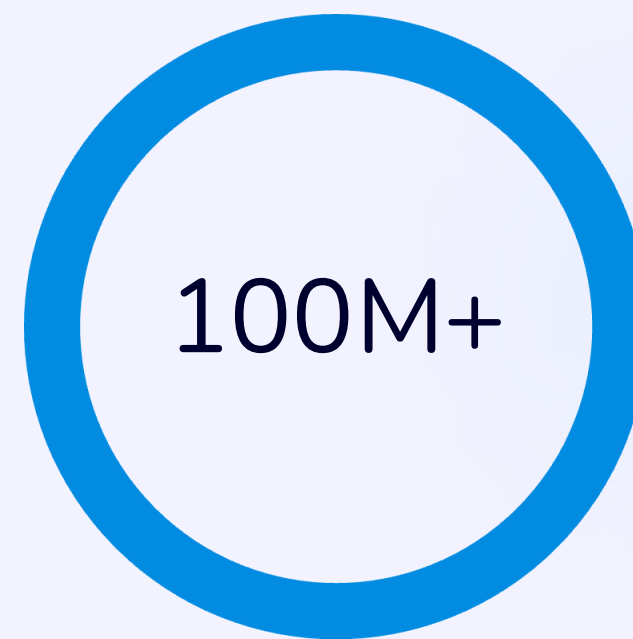
Finance stakeholder-reported errors reduced from ~12 per month to zero



93%

False Alerts Reduced

False alerts reduced from 4,000+ per day to ~280 per day



100M+

Records Processed

100M+ records processed in under 90 seconds

Executive Takeaway

For Verizon, BigQuery is more than a data warehouse—it is a strategic analytics platform underpinning enterprise decision-making and AI initiatives.

FirstEigen DataBuck transformed BigQuery into a trusted, enterprise-grade analytics foundation by combining in-situ, high-performance data quality, context-aware precision, multi-platform governance, native Dataplex integration, and actionable root cause intelligence.

About FirstEigen DataBuck

FirstEigen DataBuck is an enterprise data quality and trust platform designed for modern cloud and hybrid data ecosystems. DataBuck delivers context-aware, pipeline-native, and governance-integrated data quality across platforms including BigQuery, Dataplex, Databricks, Snowflake, Cloudera, and Teradata.