

Unified Data Intelligence for a Leading US Telecommunications Company

Driving enterprise analytics transformation through Master Data Repository stabilisation, proactive data governance, and executive-grade business intelligence dashboards, powered by GCP BigQuery and Power BI, enabling a single source of truth across the organization.



Client Overview

A Rapidly Growing US Telecom Undergoing Fiber-Led Transformation

The client is a rapidly growing telecommunications service provider in the United States, operating across both legacy copper and next-generation fiber markets. Through a combination of network expansion, infrastructure modernization, and market consolidation, the company has built a sizable customer base across residential and business segments.

As the business scaled, leadership needed a unified analytics foundation to improve visibility across four strategic priorities: Fiber Growth, Customer Experience, Build-to-Sell Execution, and Copper Strategy. The goal was to move from fragmented operational reporting to a more connected, scalable, and decision-ready analytics environment.



Key Challenges

As the company rapidly expanded its fiber foot print and customer base, fragmented data across multiple systems and siloed teams limited leadership's ability to get a single, reliable view of performance and make fast, confident decisions.

Fragmented Data & Conflicting Metrics

Multiple data sources reported different numbers for the same metrics, making it impossible to establish a single source of truth. Teams operated off conflicting data, eroding confidence in reporting and slowing decision-making across the organization.

Heavy Manual Reporting Burden

Reconciling revenue and subscriber data required significant manual effort, resulting in delayed and inconsistent insights. High time investment in data preparation left little capacity for actual analysis and strategic decision-making.

No Centralized Executive View

Leadership had no unified dashboard to monitor enterprise performance. KPIs for growth, churn, ARPU, network reliability, and customer experience were scattered across disparate reports and tools, with no standardized definitions.

Reactive Data Governance

Data quality issues were detected reactively, with teams working in silos and no consistent way to monitor data behavior over time. This reduced trust in metrics, caused repeated firefighting, and slowed root-cause analysis significantly.

Siloed Contact Center Reporting

Contact center KPIs were managed across multiple disconnected reports and tools by different teams. No standardized definition existed, causing ambiguity in interpretation and limiting cross-functional visibility into operational performance.

Unstructured Master Data Repository Development Processes

There was no defined process for tracking bugs, enhancements, or data issues. Without a structured intake and prioritization framework, development was fragmented, UAT was ad hoc, and visibility into Master Data Repository progress was limited.



Solutions Implemented

End-to-End Data Intelligence - From Foundation to Decision-Making

Polestar Analytics partnered with the client to build a robust data intelligence ecosystem, powered by GCP BigQuery and Power BI, starting from stabilising the foundational data layer, establishing proactive governance, and delivering actionable analytics at every level of the organization. All solutions were collaboratively designed with the client teams to align with their operating model.

Master Data Repository (MDR) Stabilisation & Adoption

Polestar Analytics is partnering with the client to stabilise and strengthen the Master Data Repository, the core enterprise data platform powering all downstream reporting and analytics.

- **Managing program governance**, UAT, data validation, and training documentation across cross-functional teams
- **Coordinating end-to-end resolution** of data quality issues, from incident creation through to closure
- **Establishing Master Data Repository as the single**, trusted foundation for enterprise reporting, predictive analytics, and AI initiatives

Enterprise Data Governance & Observability

Polestar Analytics, together with the client's IT and Data Governance office, designed and implemented a proactive, business-aligned connected governance framework.

- **Established data ownership**, stewardship, metadata management, and daily observability monitoring with an incident management framework to efficiently triage, review, and resolve issues
- **Created platform requirements** to procure a world-class end-to-end observability and data quality management platform
- **Shifted operations from reactive firefighting to proactive**, institutionalized governance, improving executive confidence and faster root-cause analysis

Market Health Scorecard Dashboard

Polestar Analytics designed and implemented the Market Health Scorecard, a unified executive dashboard providing a single, comparable view of market performance across copper and fiber footprints spanning multiple states and clusters.

- **Standardized market-level KPIs across growth**, customer experience, and build-to-sell dimensions
- **Enabled state and cluster benchmarking** to quickly identify outperforming vs. underperforming regions
- **Delivered clearer investment signals** to guide network and open-for-sale decisions



Solutions Implemented

Executive Key Metrics Dashboard (CEO Dashboard)

Polestar Analytics built a centralized executive dashboard used by the CEO, delivering a business performance aligned to the company's strategic pillars covering 3 main metrics – growth, cancel, and churn. The dashboard features two core views:

- **Acquisition View** — Tracks Gross Sales, Installs, Net Adds, Acquisition ARPU, Cancel %, and OFS % of Premises Passed to monitor customer acquisition and fiber expansion.
- **Base Management View** — Covers Subscribers, Base ARPU, Churn %, Network Reliability, Lost ARPU, and Disconnects to track retention, monetization, and service performance.

A KPI Glossary ensures aligned definitions across teams, while target-vs-actual tracking strengthens accountability across leadership levels.

Contact Center Performance Dashboard

Polestar Analytics developed a centralized contact center performance dashboard, consolidating key operational KPIs, Call Volume, Calls Handled, ASA, AHT, FCR (3 Days), and Agent & Supervisor performance into a single platform.

- **Enabled queue-level monitoring**, agent and supervisor benchmarking, and current vs. prior period trend analysis to identify targeted training needs
- **Developed a dedicated KPI Glossary** to standardize definitions and ensure consistent interpretation across all teams

Cross-Functional Coordination & Master Data Repository BAU Support

Polestar Analytics streamlined the client's Master Data Repository development operations by building a formal intake-to-closure framework, bringing structure, transparency, and predictability to the development lifecycle.

- **Structured bugs and data issues** as incidents and enhancements as prioritized intakes, with weekly planning aligned to development capacity
- **Managed UAT tracking**, backlog grooming, and incident workflows end-to-end via JIRA, Confluence, and ServiceNow



The Overall Business Impact

Polestar Analytics' engagement delivered a step-change in the client's data maturity, moving from fragmented, manual, and reactive analytics to a unified, governed, and proactively managed intelligence ecosystem. The transformation spans the full data value chain: from foundational data quality through to executive decision-making.

Enabled Robust Data Governance Framework

Shifted from reactive to proactive data quality management, with automated monitoring, lineage tracking, and observability enabling faster root-cause analysis, reduced firefighting, and increased executive trust in data.

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Aligned KPI Definitions

Standardized metric definitions across all dashboards and teams, resolving discrepancies that previously eroded confidence in executive reporting and compensation metrics, and establishing a governance baseline for future reporting assets.

2

Trusted Enterprise Data Layer

Established a unified, trusted data foundation through master Data Repository stabilization, eliminating conflicting numbers across source systems and enabling consistent, reliable enterprise-wide reporting for the first time.

3

Faster, Confident Decision-Making

Executive dashboards, directly used by the CEO, replaced manual, delayed reporting cycles. Leadership can now monitor growth, churn, network health, and contact center performance in one place, at any time.

4

Structured Master Data Repository Operations & Scalable Foundation

A formal intake, UAT, and incident management framework now governs the Master Data Repository lifecycle, improving transparency, reducing unplanned work, and enabling scalable growth.

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About

Polestar Analytics

Polestar Analytics is a leader in Data, Analytics, AI, and Enterprise Planning, helping organizations build intelligent outcomes through proprietary products, accelerators, and deep domain expertise. Our capabilities span data engineering, data science, agentic and generative AI, and advanced planning for Telecommunications, CPG/Retail, Pharmaceuticals, Manufacturing, IT/ITeS, and Financial Services.

Data Engineering

Scalable pipelines, MDR build & stabilisation, cloud data platforms

Data Governance

Metadata management, lineage, observability, and stewardship frameworks

Business Intelligence

Executive dashboards, KPI frameworks, self-serve analytics

AI & Advanced Analytics

Agentic AI, generative AI, predictive analytics, data monetization

Reach out to us today!