Telco Customer Churn Analysis

Strategic Insights & Revenue Retention Roadmap
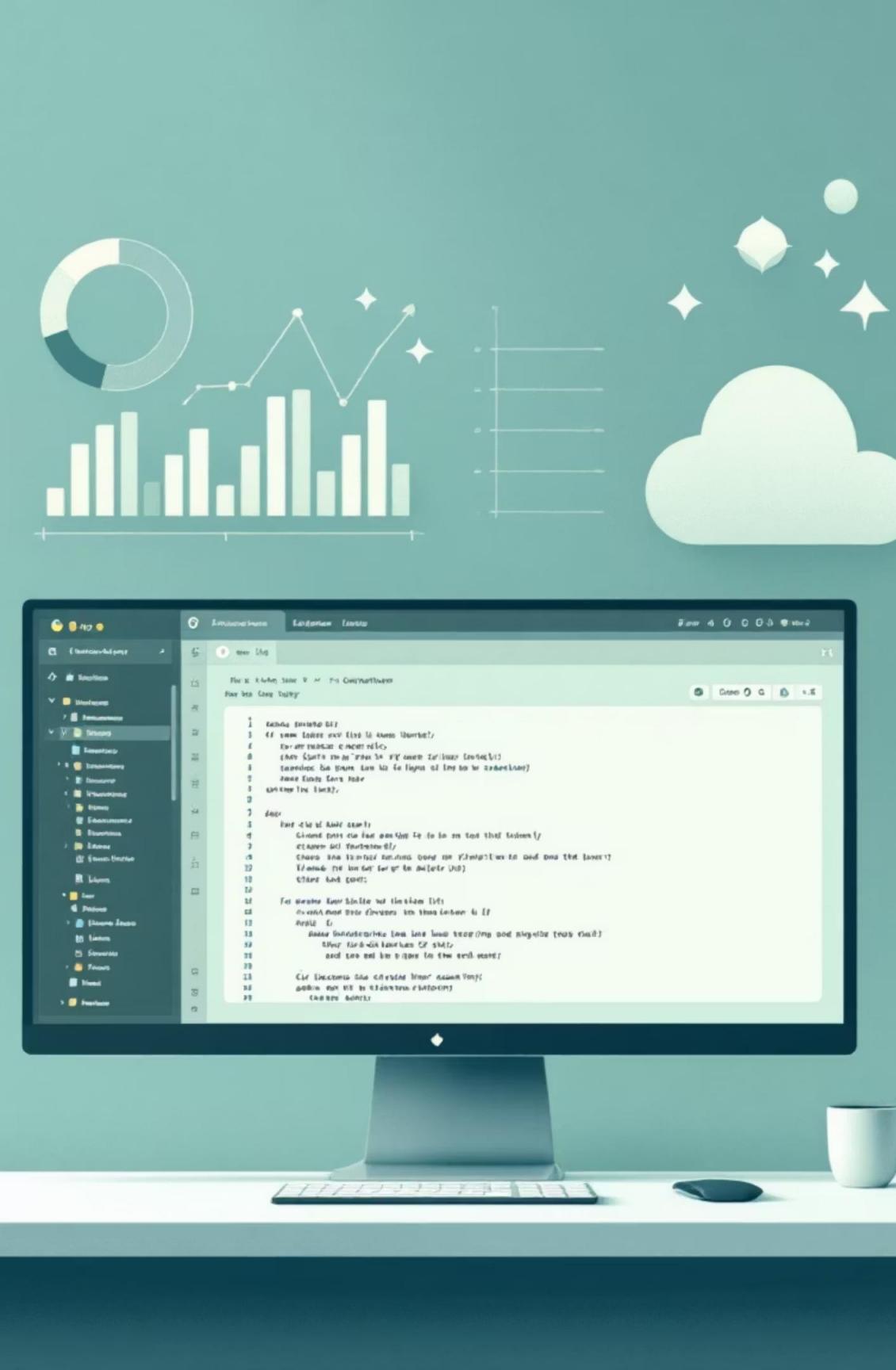
Executive Summary

My analysis identifies critical friction points in the customer lifecycle. The primary objective is to address the current churn volatility and stabilize subscriber base.

> ### 🗒 Target KPI
>
> Stabilize and reduce the benchmarked **26.58% churn rate** through data-led interventions.

Methodology

Data Audit & Integrity

Ensuring high-fidelity insights through rigorous preprocessing using Python.

Type Conversion

Converted `TotalCharges` from object to numeric to enable financial modeling.

Imputation Strategy
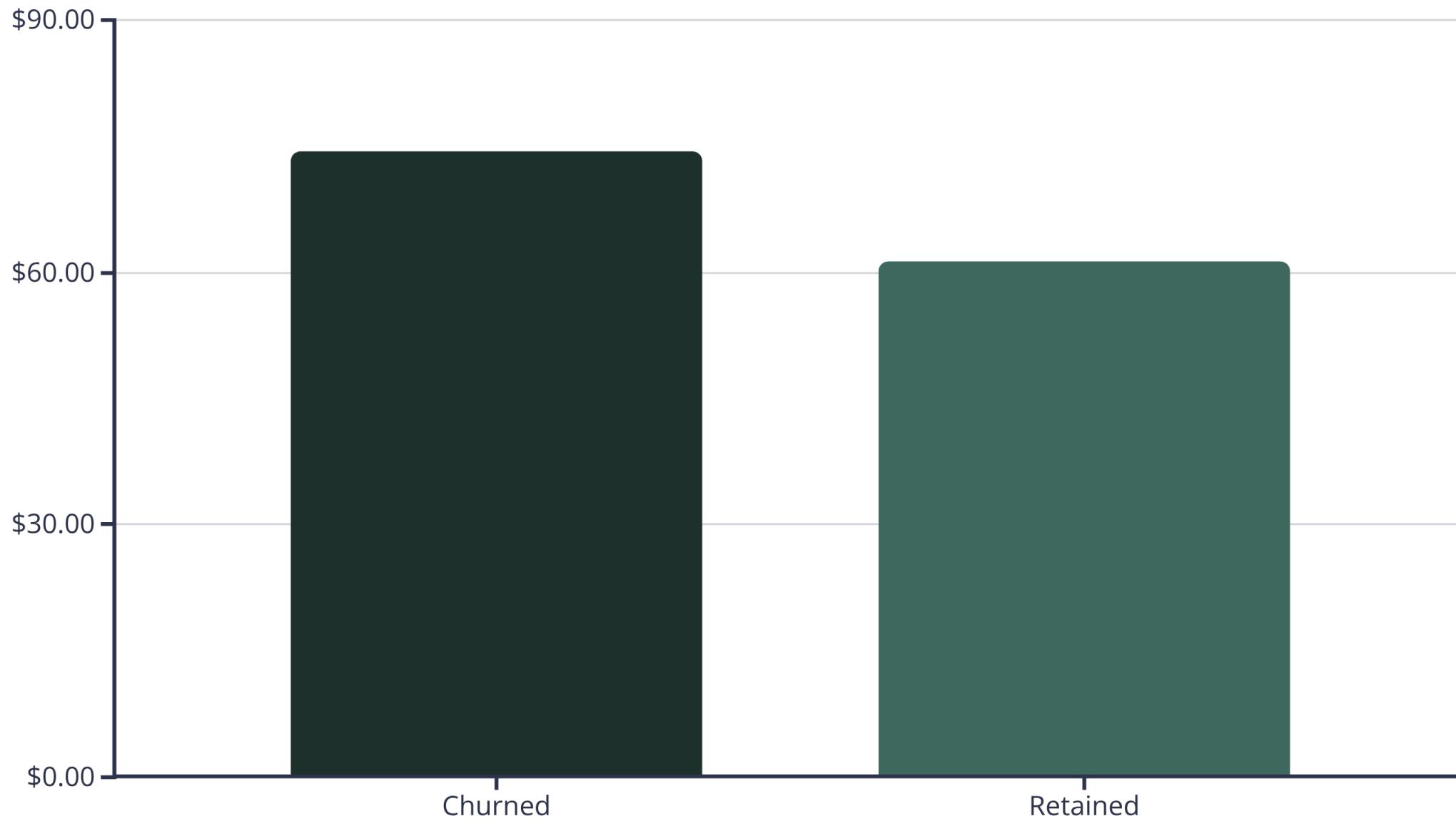
Identified and handled missing values in tenure-based features to prevent bias.

Feature Engineering

Normalised monthly spend data to compare high-value vs. budget segments.
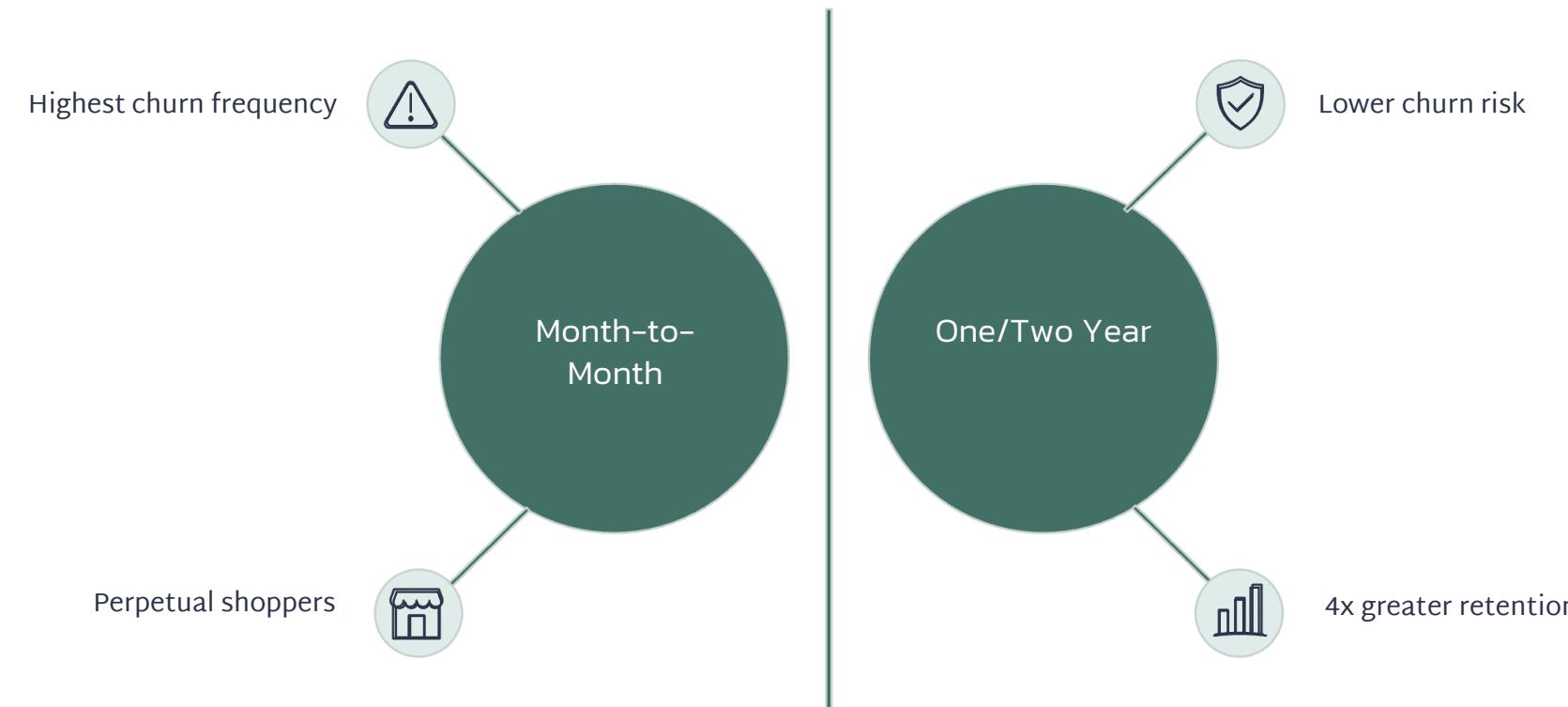
The Big Driver: Monthly Costs

Data confirms a **21% cost gap**. High-spend customers are significantly more likely to exit, suggesting a lack of perceived value for the premium price point.

Contract Structure Analysis

Short-term flexibility is our largest vulnerability point.

Highest churn frequency

Month-to-Month

Perpetual shoppers

Lower churn risk

One/Two Year

4x greater retention
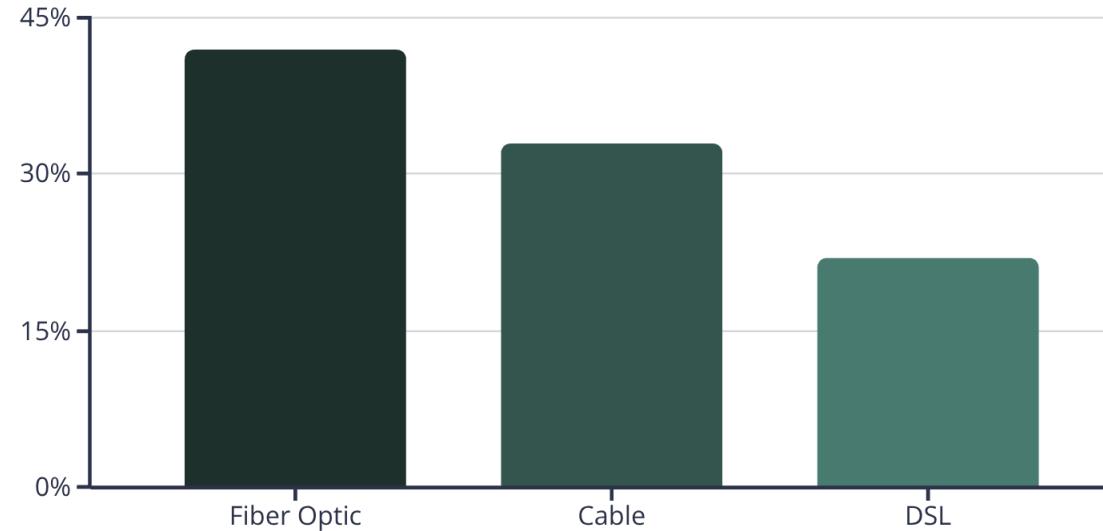
Month-to-Month

Highest churn frequency. These customers act as 'perpetual shoppers'.

Long-Term

Annual contracts show 4x higher retention rates than monthly plans.

The Fiber Optic Paradox

41.89%

Churn Rate on Fiber

Despite offering superior speeds, Fiber Optic users churn at nearly double the rate of DSL users. This represents our highest churn segment.

The Paradox: Superior Speed ≠ Customer Loyalty. Our fastest service segment shows the highest churn.

Strategic Insight: The Fiber Paradox reveals a critical gap between product capability and customer satisfaction. Addressing non-speed factors is key to unlocking fiber's full revenue potential.

Pricing Structure

Premium pricing drives price sensitivity; customers are switching to save ~20% on monthly bills despite speed loss.

Customer Experience

Complex billing and average 15-minute hold times for support calls negate performance advantages, leading to frustration.
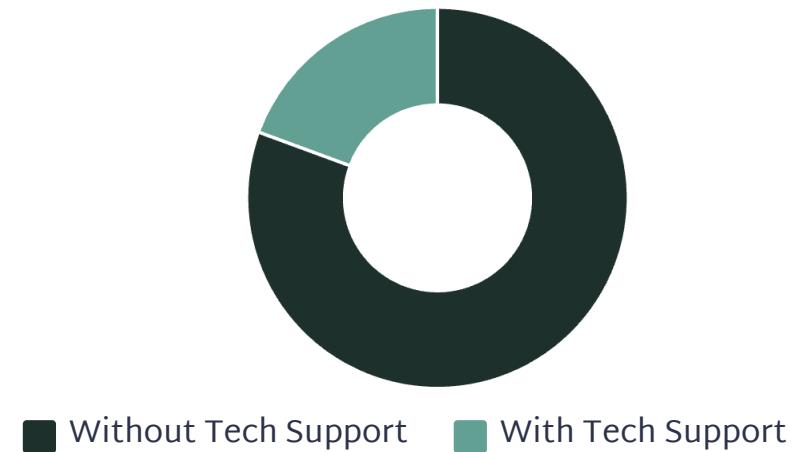
Value Perception

Only 30% of fiber users frequently utilize full speeds, diminishing perceived benefit over more affordable alternatives.

User Experience

The Critical Service Gap

■ Without Tech Support ■ With Tech Support

63%

High Churn Without Technical Support

63% of churned customers had no technical support plan.

Support Gap	**Resolution Time**	**NPS Impact**
Customers without support churn at **4x the rate**.	Resolution time is **2.5x longer** for unsupported customers.	NPS for unsupported customers is **-30** vs **+45** for supported.

Analytics Tool

Interactive Churn Dashboard

We have deployed a Power BI solution for real-time segment monitoring.

Dynamic Slicers

Filter by geography, contract type, and payment method.

Risk Scoring

Identifies "At-Risk" segments before they reach the billing cycle end.
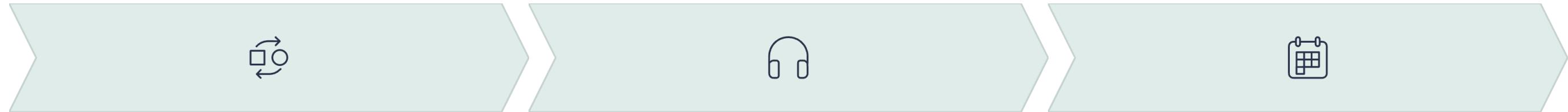
Revenue Impact

Visualises the dollar value of potential churn saved.

Integrated Churn Mitigation Strategy

Optimize Contract Pathways

Targeting an estimated 15% churn reduction.

Enhance Service Bundling

Projected to increase CLV by $200+ per customer.

Proactive Retention Outreach

Aiming to boost retention by 10% among top clients.

These strategies target the top 3 critical churn drivers for maximum impact.

Strategic Impact: Maximizing Revenue & Growth

Transitioning to a proactive support model will safeguard our high-ARPU Fiber segment.

Reduced CAC

Streamline acquisition costs.

Lower acquisition costs through improved retention and reduced churn-driven replacement spending.

Boosted CLV

Maximize customer lifetime value.

Extended customer relationships and increased service adoption drive higher lifetime value.

Stable Revenue

Ensure predictable quarterly growth.

Predictable recurring revenue from longer contract commitments and reduced churn volatility.

Decisive Action for Sustainable Success.