



Customer Churn Analysis and Impact of Technology Migration (Copper to Fiber)

(Telecommunication Company focused on the U.S. Rural market)

Analyzed customer churn behavior by product and performed a further deep-dive to evaluate the impact of customers migrating from copper technology to fiber technology on churn. Additionally, analyzed the conversion journey of customers upgrading to fiber through customer care platform.

CUSTOMER CHURN AND CONVERSION RATES FOR TECHNOLOGY MIGRATION

ABOUT THE CLIENT

Client is a leading provider of advanced network communications and technology solutions focused on the U.S. rural market

SITUATION



- Client had limited visibility into customer churn behavior leading to uncertainty in evaluating the impact of key strategic initiative of migrating customers from copper technology to fiber technology
- There was an opportunity to provide enhanced visibility into the churn behavior of customers at a product level along with the key drivers of churn
- Partnered with client to identify the various **drivers of churn to identify the business impact of the technology migration** and evaluated the efficacy of customer care in enabling copper customers to upgrade customers to fiber technology

VALUE ADDITION



- Analyzed churn behavior of customers by segmenting churn by various drivers such as **disconnect reasons** (non-pay, competitive, financial etc.), **product type** (single product, multiple), **tenure**, etc.
- Evaluated the **incremental retention rate of a fiber customer** to quantify the business impact of technology migration and layered the key driving factors of better retention in fiber
- Identified the **key driving factors that enhance conversion rates** of customers through customer care
- Developed a Tableau-based dashboard to monitor and track the product level churn performance on a real-time basis

IMPACT



- Identified potential opportunity to **reduce churn rate by 13%** by migrating customers from copper technology to fiber technology
- Estimated **5% potential revenue uplift** due to enhanced customer retention rate in fiber compared to copper technology

METHODOLOGY/ APPROACH



Customer Churn Behavior by Product

- Analyzed the churn behavior of customers by products across **tenure group, acquisition channel, technology type, disconnect reason**, etc.
- Benchmarked the churn rate for products on copper technology against the fiber technology products to evaluate the impact of technology type on churn rate
- Analyzed various customer service metrics such as network downtime, repair tickets, large outages, etc., to evaluate their impact on product churn



Churn Monitoring & Trends

- Developed a Tableau-based dashboarding suite to **monitor churn rate for products and product combinations** on an ongoing basis
- Identified the **factors driving high churn rate among copper customers** compared to fiber customers and validated the trend across time periods
- Highlighted the opportunity to migrate customers currently on copper technology to fiber



Copper to Fiber Migration

- To track the **ongoing migration efforts of customers along with analyzing conversion rates**, developed a Tableau-based automated dashboard with customer migration journey
- Identified **customers reaching out to customer care** with eligibility to migrate to fiber to fast-track migration efforts
- Analyzed various metrics **to enhance the efficiency of customer care** to increase the fiber migrations

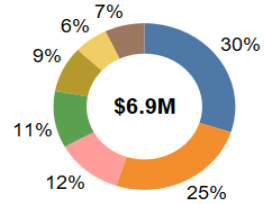
EXHIBIT 1 – PRODUCT PERFORMANCE DASHBOARD TO TRACK MONTHLY HEALTH

ILLUSTRATIVE

Overview - Product Performance

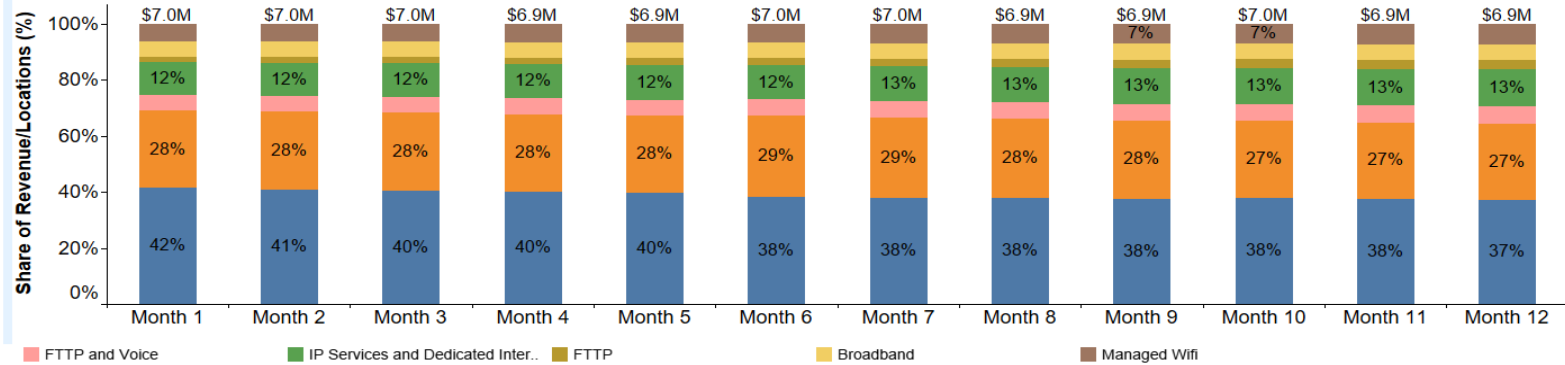
Post Period (All)	State (All)	Legacy/Strategic (All)	Tenure Group (All)	Competitive Tier (All)	Revenue Group (All)	Speed Group (All)	Fiber Status (All)	
Revenue/Location Revenue	Entity Type All	Revenue (Month 12) \$6.9M (▼\$45K vs. Month 11)		Disconnect Revenue (Month 12) \$135K (▼\$19.5K vs. Month 11)		Disconnect Rate by Revenue (Month 12) 0.9% (▼0.04% vs. Month 11)		Disconnects (Month 12) 1,025 (▼4 vs. Month 11)

Share of Revenue (%) by Product Combination (Month 12)

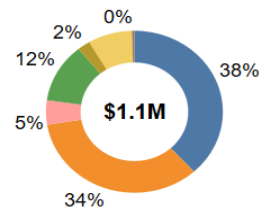


■ Broadband and Voice ■ Voice ■ FTTP and Voice ■ IP Services and Dedicated Inter... ■ FTTP ■ Broadband ■ Managed Wifi

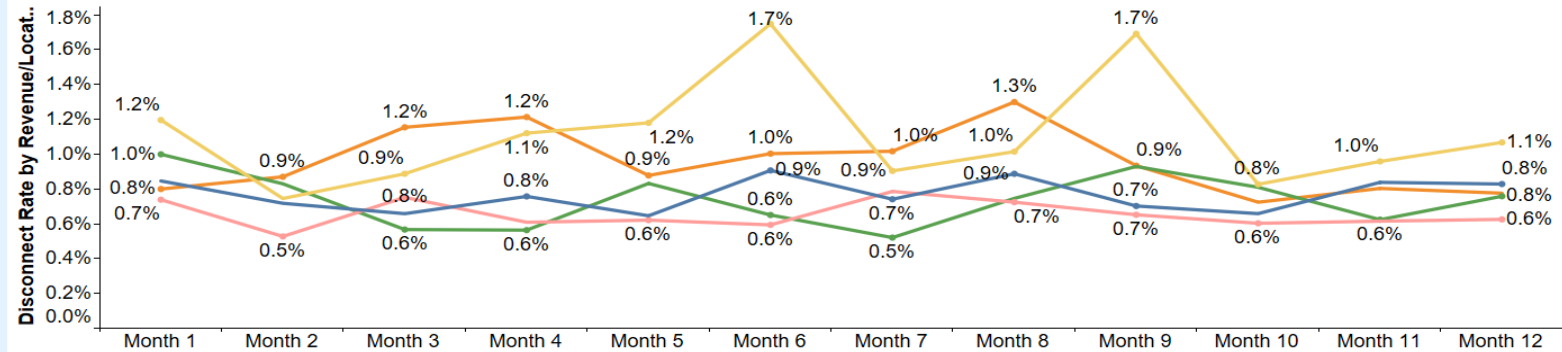
Monthly Trend of Revenue (\$) by Product Combination



Share of Disconnect Revenue (%) by Product Combination (Month 1 - Month 12)



Monthly Disconnect Rate (%) by Revenue based on Product Combination



Overview | Churn Trends by Product and ... | Churn Trends by Product and ... | By All Product Combinations | Reset Button | KPI- Overall revenue | 1 KPI- Combo | 1 KPI-Individual | KPI- Overall discor

EXHIBIT 2 – CHURN TRENDS BY DISCONNECT REASON AND CUSTOMER TENURE

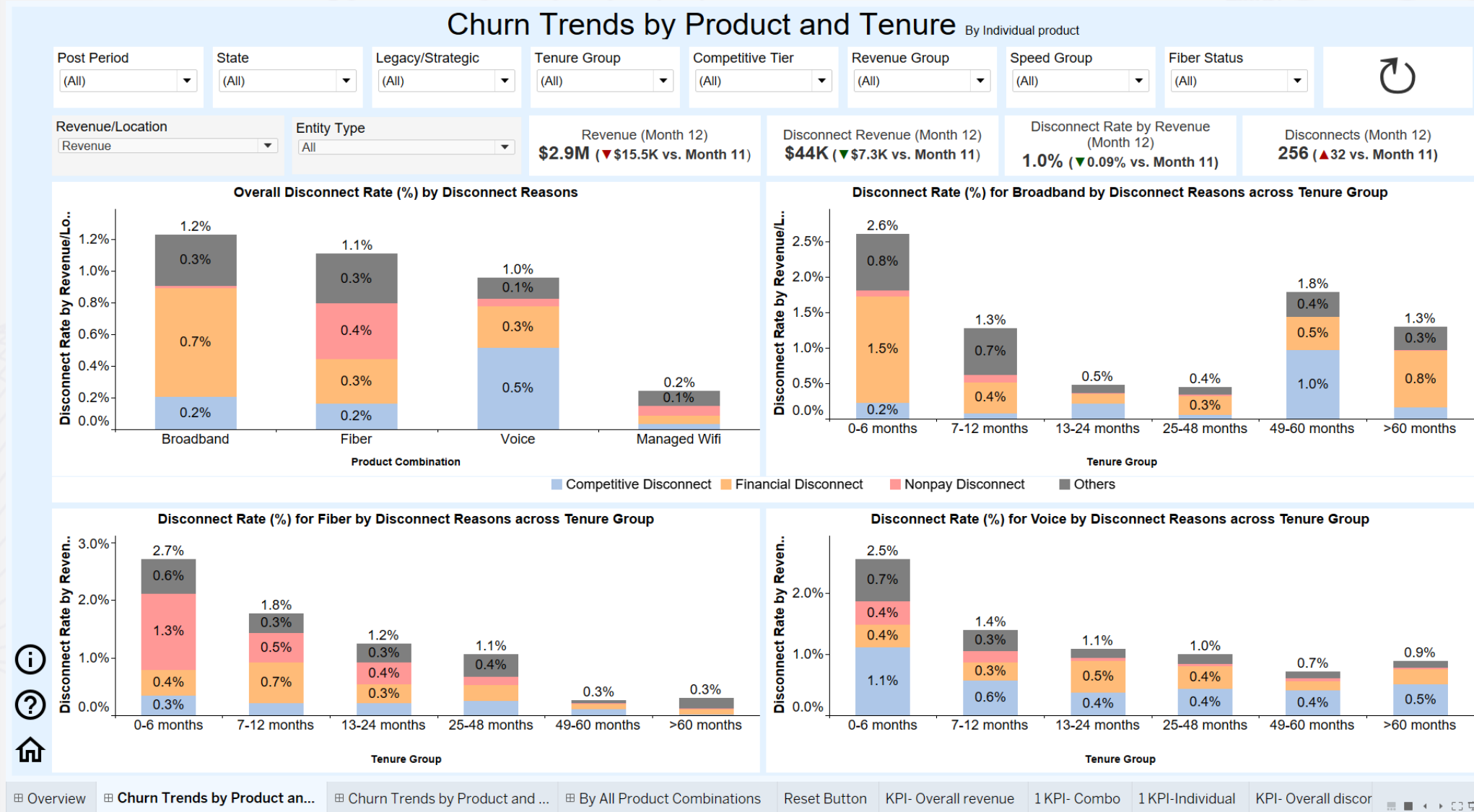
ILLUSTRATIVE

EXHIBIT 3 – COPPER TO FIBER CUSTOMER MIGRATIONS

ILLUSTRATIVE

Provides flexibility to get granular insights on conversion rates based on other customer attributes

Provides visibility into the upgrade requests and conversion rates for copper to fiber migrations

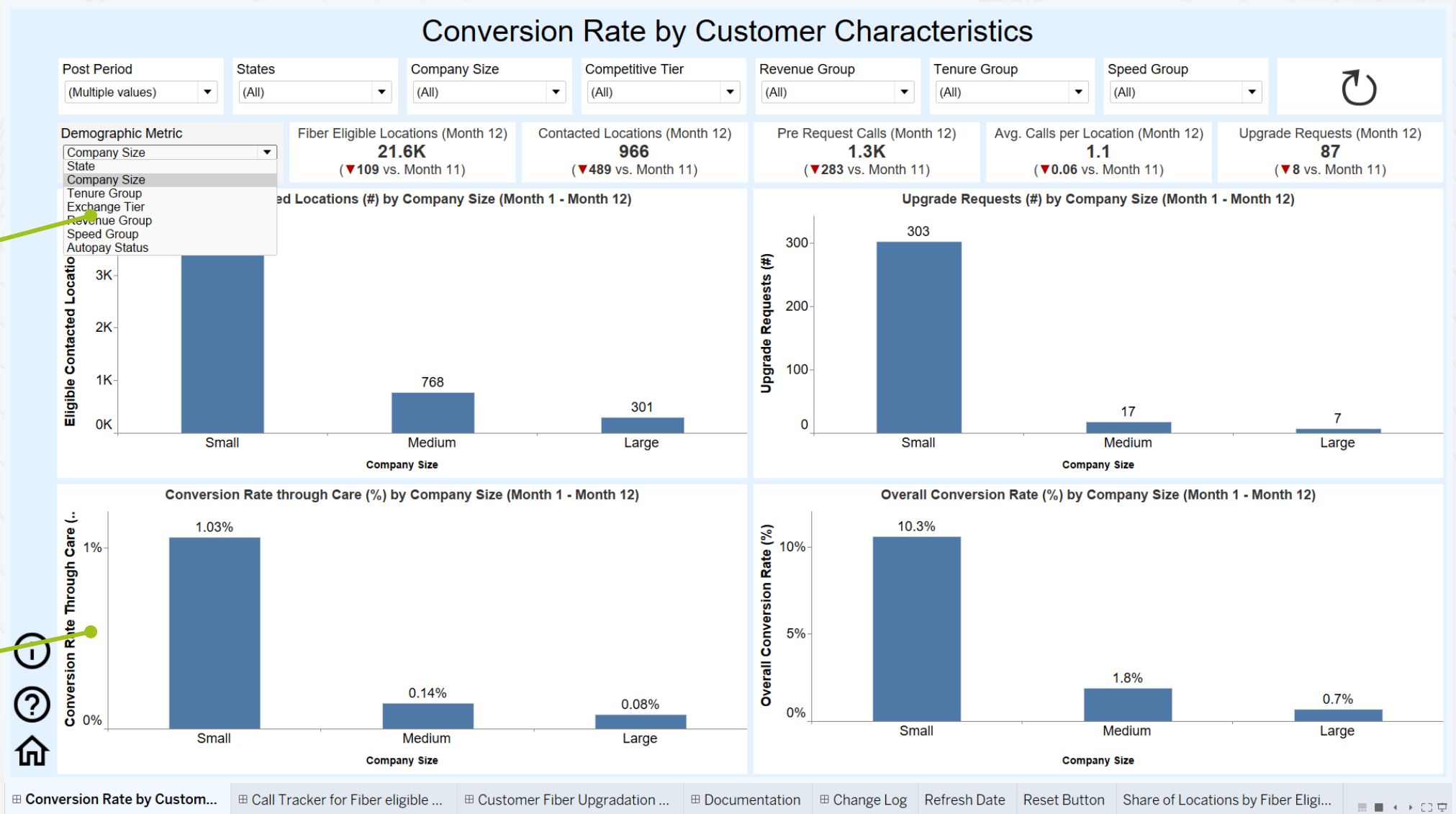


EXHIBIT 4 – PRODUCT CHURN BY TENURE (FOR CUSTOMERS WITH MULTIPLE PRODUCTS)

Call Tracker for Fiber Eligible Customers

Location Account ID

State

Company Size

Competitive Tier

Tenure Group

Revenue Group

Call Tracker for Fiber Eligible Customers

Month	Location Account ID	Company Size	State	Latest Tenure Group	Latest Revenue Group	Last Contact Date	No. of Pre Request Calls	Total Pre Request Call Duration (Min.)
Month 12		Small	State 1	>60 months	< \$150	07/21/2023	1	14
		Small	State 1	>60 months	\$150 - \$299.99	07/13/2023	3	20
		Small	State 1	>60 months	< \$150	07/26/2023	2	42
		Small	State 1	>60 months	\$150 - \$299.99	07/26/2023	2	31
		Medium	State 1	>60 months	\$300 - \$799.99	07/24/2023	10	29
		Small	State 1	>60 months	\$150 - \$299.99	07/07/2023	5	8
		Small	State 1	>60 months	< \$150	07/19/2023	3	12
		Small	State 1	>60 months	\$150 - \$299.99	07/19/2023	4	21
		Small	State 1	>60 months	\$150 - \$299.99	07/25/2023	3	15
		Medium	State 1	>60 months	\$800 - \$1,499.99	07/25/2023	6	17
		Small	State 1	>60 months	< \$150	07/14/2023	1	9
		Small	State 1	>60 months	\$150 - \$299.99	07/05/2023	3	28
		Small	State 1	>60 months	\$150 - \$299.99	07/05/2023	1	27
		Medium	State 1	>60 months	\$300 - \$799.99	07/10/2023	1	24
		Small	State 1	>60 months	< \$150	07/21/2023	1	26
		Small	State 1	>60 months	< \$150	07/21/2023	1	4
		Medium	State 1	>60 months	\$800 - \$1,499.99	07/05/2023	2	21
		Small	State 1	>60 months	< \$150	07/06/2023	3	13
		Small	State 1	>60 months	\$150 - \$299.99	07/26/2023	4	44
		Small	State 1	>60 months	\$150 - \$299.99	07/11/2023	8	22
		Medium	State 1	>60 months	\$150 - \$299.99	07/07/2023	4	26
		Small	State 1	>60 months	< \$150	07/12/2023	4	21
		Medium	State 1	>60 months	\$300 - \$799.99	07/14/2023	2	22
		Medium	State 1	>60 months	\$800 - \$1,499.99	07/10/2023	1	31
		Small	State 1	>60 months	< \$150	07/28/2023	2	16
		Large	State 1	>60 months	\$800 - \$1,499.99	07/11/2023	3	22
		Medium	State 1	>60 months	>= \$1,500	07/11/2023	1	28
		Small	State 1	>60 months	< \$150	07/26/2023	3	11
		Large	State 1	>60 months	\$150 - \$299.99	07/06/2023	1	26
		Small	State 1	>60 months	< \$150	07/25/2023	1	9
		Small	State 1	>60 months	\$150 - \$299.99	07/11/2023	4	22
		Small	State 1	>60 months	< \$150	07/18/2023	1	19
		Small	State 1	>60 months	< \$150	07/05/2023	1	32
		Small	State 1	>60 months	\$300 - \$799.99	07/17/2023	3	13
		Small	State 1	>60 months	\$150 - \$299.99	07/26/2023	6	22
		Small	State 1	>60 months	\$150 - \$299.99	07/07/2023	2	16

Conversion Rate by Customer...

Call Tracker for Fiber eligible...

Customer Fiber Upgradation ...

Documentation

Change Log

Refresh Date

Reset Button

Share of Locations by Fiber Eligi...

Provides visibility into calls to customer care for client to pro-actively reach out to these customers for upgrades from copper to fiber