**TelcoMax: Customer Churn Analysis and Revenue Optimization**

# Background

TelcoMax is a leading telecommunications provider offering a wide range of services including internet, television, and mobile phone plans. Despite a robust customer base, TelcoMax has been experiencing a noticeable rate of customer churn, which is adversely affecting its revenue growth and market position. Understanding the factors contributing to customer churn and identifying strategies to retain customers is crucial for the company’s long-term success.

# Business Problem

TelcoMax aims to reduce customer churn and optimize revenue by gaining insights into the customer journey, identifying key indicators of churn, and developing targeted strategies to improve customer retention. The company is seeking a comprehensive analysis that integrates customer demographics and usage patterns to understand the churn behavior.

# Objectives

**Analyze Customer Churn**: Determine the overall churn rate and identify customer segments with the highest churn rates.

**Identify Key Indicators**: Pinpoint factors such as tenure, monthly charges, and demographic details (e.g., gender, dependents, senior citizens) that are most strongly associated with churn.

**Evaluate Financial Impact**: Assess the total monthly charges lost due to churn and identify high-value customer segments at risk.

**Recommendations**: Provide actionable recommendations for reducing churn and improving customer retention strategies.

# Data Sources

**Customer Demographics**: Information about customer age, gender, dependents, senior citizen status, etc.

**Service Details**: Monthly charges, and tenure.

**Churn Status**: Indicator whether a customer has churned or not.