



AMERICAN DREAMS: REDUCING CHURN AMONG SYRIATEL'S AMERICAN CUSTOMERS

Paul Rogers — From [NY Times Article](#) by Jane Brody

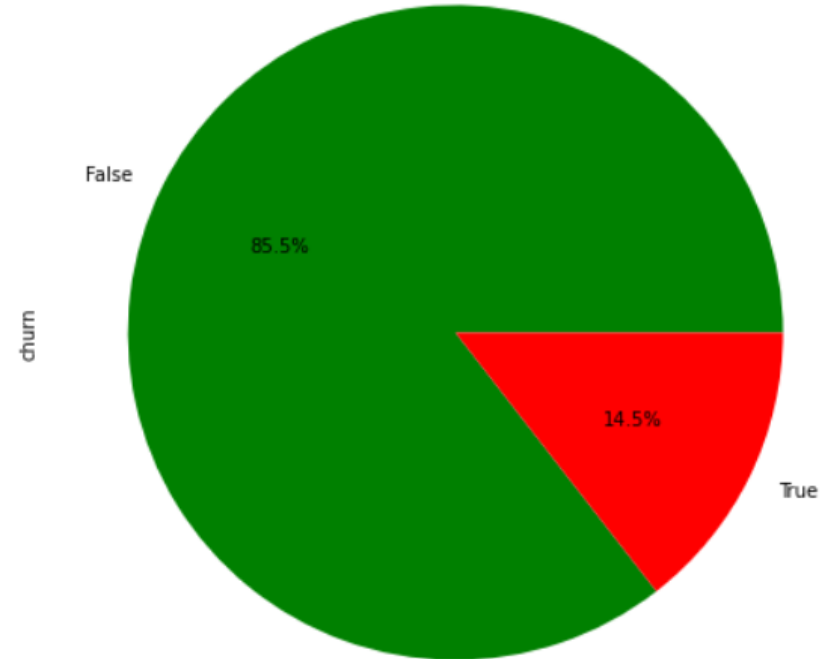
BUSINESS UNDERSTANDING

- The global telecom market is massive and is expected to grow. According to [Global News Wire](#), the market value of the telecom industry was \$ 1.73 trillion dollars in 2021 and is expected to grow to \$2.65 trillion dollars by 2030.
- Competition is fierce since the American market contain giants like Verizon, AT&T, and Comcast.
- So, if you are looking to increase your foothold in the United States or maintain your place then you have to focus on **customer churn**.
- Today, I will provide insights and recommendations that will increase customer retention and reduce customer churn.

DATA UNDERSTANDING

- Customer churn is when a customer leaves the company and retention is when a customer continues using the company's service. SyriaTel's churn rate is only 14.5% compared to [the industry average of 22%](#).
- I used a dataset of over 3,000 American customers.
- I wanted to know what factors are most important in determining customer churn and how churn can be reduced.

What % of customers churn?



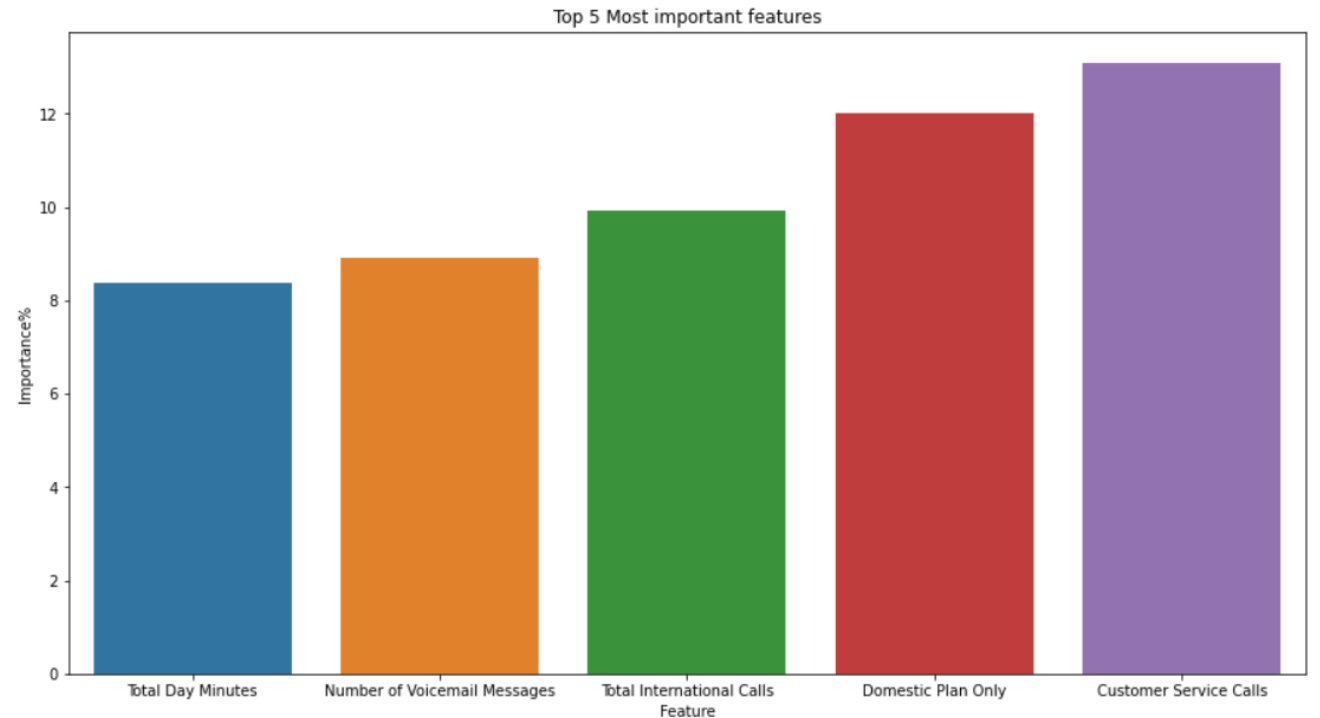
Model Results

The model correctly predicts about 73% of churned customers.

Its churn predictions are correct 94% of the time.

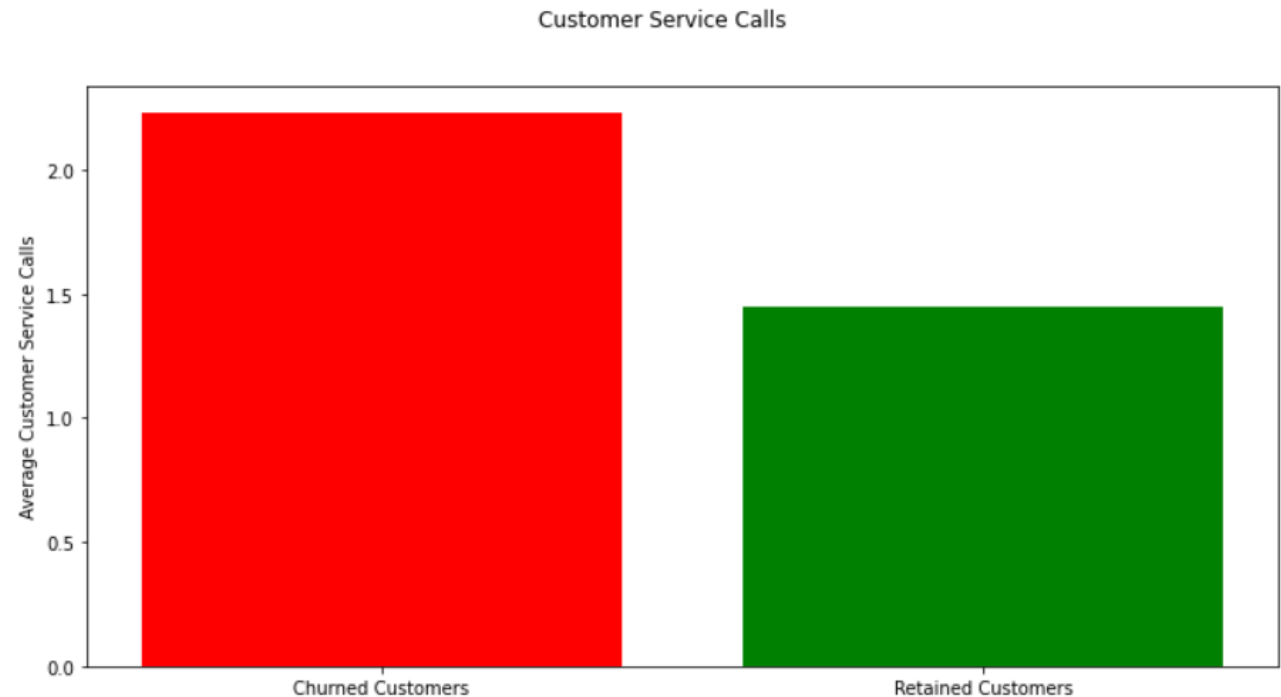
Feature Importance

- The 5 most important features for predicting churn were:
1. # of Customer Service Calls.
 2. Whether the customer had the domestic only plan.
 3. The total # of international calls a customer makes.
 4. Number of Voicemail Messages.
 5. Total Number of Day Minutes.



Customer Service Calls

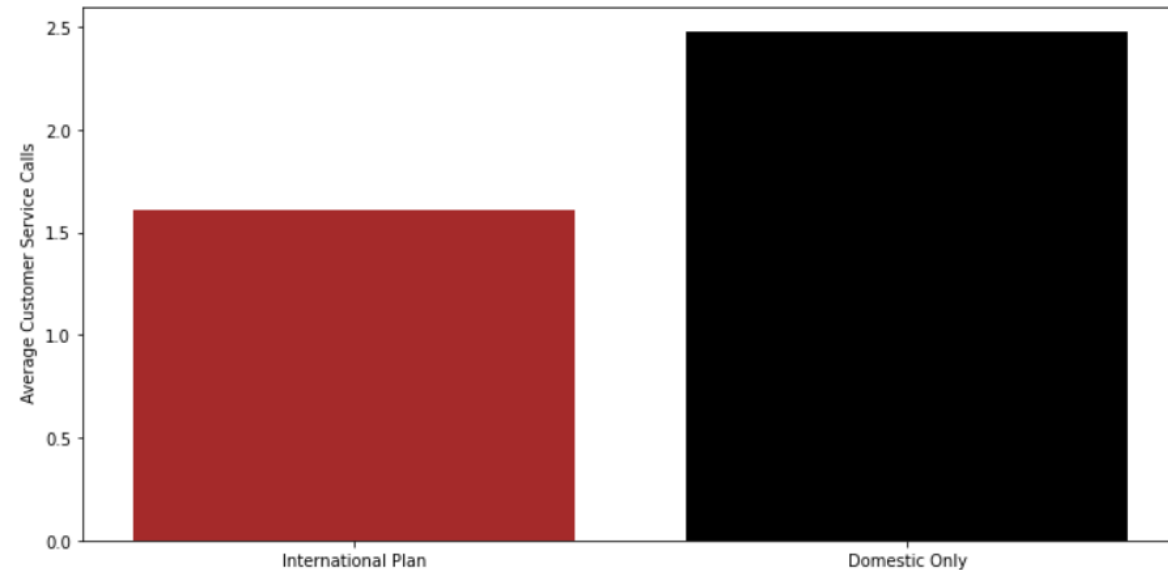
- Churned customers make 2.29 customer service calls while retained customers only make 1.44 calls.
- Recommendation: **Proactively reach out to customers who make 2 or more calls.**



Domestic vs International Plans

- 72% of those who are churn only have domestic plans.
- Churned customers with only domestic plans call make 2.47 calls to customer service while those who have international plans make 1.60 calls.
- Recommendation: **Make a concerted effort to document and satisfy the concerns of customers who only have domestic plans since they represent the vast majority of churning customers. Use customer service calls as an opportunity to identify problems.**

Churned Customers: Customer Service Calls by plan type



CUSTOMER CHURN AND MINUTES USED

- Churned customers average 624 minutes on the phone and retained customers average 574 minutes. That is 50 more minutes on the phone than retained customers and 8% more.
- Churned customers average more time both in the day and the evening. Churned customers with domestic plans only average 19 more minutes in the day on the phone and 4 more minutes in the evening than customers with international plans.



CUSTOMER CHURN AND MINUTES RECOMMEDATION

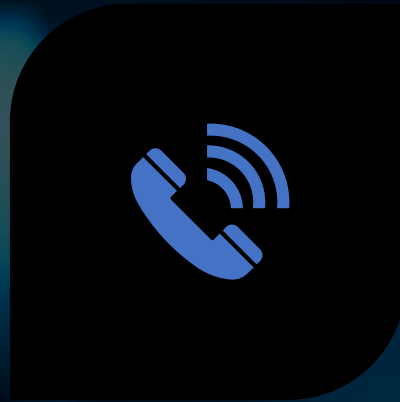
- Recommendation: **Reward customers who use 634 minutes or over. This will target 50% of churned customers and about 20% of retained customers.**



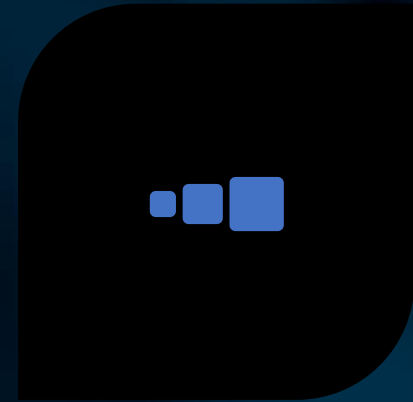
Recommendations



PROACTIVELY REACH OUT TO CUSTOMERS WHO MAKE 2 CALLS OR MORE TO CUSTOMER SERVICE.



MAKE A CONCERTED EFFORT TO SATISFY THE CONCERNS OF CUSTOMERS WHO ONLY HAVE DOMESTIC PLANS SINCE THEY REPRESENT THE VAST MAJORITY OF CHURNING CUSTOMERS. CUSTOMER SERVICE CALLS ARE A PERFECT OPPORTUNITY TO FIND OUT WHAT THEIR CONCERNS ARE AND TAKE STEPS TO ADDRESS THEM.



REWARD CUSTOMERS WHO USE OVER 634 MONTHLY MINUTES OR MORE. THIS WILL TARGET 50% OF CHURNED CUSTOMERS AND ABOUT 20% OF RETAINED CUSTOMERS. INCENTIVES, REBATES AND CASH COULD ALL BE EFFECTIVE REWARDS.

CONCLUSION

- I have created a model that will help SyriaTel retain churned customers. I have recommended 3 solutions to reduce customer churn:
- 1. Proactively reach out to customers who make 2 calls or more to customer service.
- 2. Make a concerted effort to satisfy the concerns of customers who only have domestic plans since they represent the vast majority of churning customers. Customer Service calls are a perfect opportunity to find out what their concerns are and take steps to address them.
- 3. Reward customers who use over 634 monthly minutes or more. This will target 50% of churned customers and about 20% of retained customers.
- These recommendations should make a dent in SyriaTel's churn rate. However, it would be presumptuous to assume that they alone would comprehensively solve SyriaTel's comparatively model churn problem.

Next Steps

1. Getting background information on users to better predict which users will churn. Demographic data like income level and age would be useful.
2. Examining the effect of bundled services like cable and internet. Churn rates for internet companies are 19% compared to [industry average of 22%](#) for telecom companies.

Thank You!

Github:

https://github.com/icapeli/telecom_phase_3

