

How much are your subscribers worth?



Mu Sigma enabled a large US telephone, cable and Internet service provider to increase the effectiveness of its customer relationship management program by developing a comprehensive customer lifetime value solution framework.

ABOUT THE CLIENT

The client is a large US telephone, cable and Internet service provider, with technologically advanced, well-clustered systems located in multiple regions across the country. It serves more than 15 million subscribers who subscribe to one or more of its video, high-speed data and voice services. The client wanted to increase the effectiveness of its customer relationship management program by leveraging a measure of customer lifetime value (CLV) for driving better decisions. A robust CLV model would enable the client to generate insights to reduce subscriber churn, increase subscriber revenue and reduce cost of service.

CHALLENGE

A highly complex data environment required significant investment in time before being able to leverage data for insights. The right framework had to be synthesized to define a measurable customer lifetime value over an appropriate timeframe. This proved a difficult process due to the high involvement of a large number of project stakeholders, each with different viewpoints on the key metrics to be used, definitions of these metrics, and methodologies to be followed. A very large number of product states, as well as cost and revenue categories, compounded the complexity challenge. Finally, computing resources with significant processing power would have to be procured so as to ensure efficient and timely execution of data handling activities.

APPROACH

A timeframe of three years was used to model the residual CLV, with all profits/losses generated by the subscriber after that period being incorporated into a terminal value. The first step was a churn model, focusing on month-on-month probability of churn for each subscriber, followed by transition models to incorporate probability of a subscriber retaining his product, and migrating to other products. A transition matrix was created to model the migrations across multiple product states. The churn and migration models were then integrated, and month-on-month revenues and costs were then applied, before finally discounting over thirty-six months to get the residual CLV. Terminal value was modeled as a perpetuity cash flow from the thirty-sixth month onwards, using the revenue and cost information in the thirty-sixth month, along with appropriate growth rate and churn rate adjustments.

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OUTCOME

The insights from the CLV models for subscribers as well as prospects were applied across the customer lifecycle to enhance the value of the subscriber base. The prospect model was used to prioritize targeting efforts to prospects with high CLV, and high value prospects were directed towards more efficient channels of acquisition. Subscriber segments built based on CLV and churn propensities helped target retention efforts towards high value – high risk subscribers. This strategy was tested on a base of 5,000 subscribers, and \$4.5M of incremental profits were estimated. Insights were also leveraged in the development of promotional schemes and marketing campaigns. Highest value migrations were identified to increase the payoff from cross-sell campaigns. Finally, CLV scores were aggregated to come up with an alternate measure of company valuation, based purely on subscriber behavior and thus providing a better indicator of company performance.