

Churn Prevention for a Telecom

Successful Recognition of High Risk Attritors

The Situation

A Telecom churn study showed loss of 960K households annually as a result of their move, for the annual revenue loss of \$ 518 M. The telecom retention manager identified the root cause of the move related attrition as inability to recognize customers at their new location and not extending their prior discount plans.

The Need

The retention manager needed to identify prior customers after they reconnect the service in the new location. This needed to happen before their first bill goes out, so that the prior plans and discounts could be applied.

The Solution

A ML learning based algorithm was developed matching the “new” customers to those recently disconnected using their calling patterns. A customer’s calling activity consists of a sequence of inbound and outbound calls. Those calls have a number of attributes, such as duration, time of day, time of week etc. Using historical call data, our algorithm first used an *OR set covering* technique to identify a unique “fingerprint” of calls for each disconnected customer. Then the same “fingerprint” was searched for amongst the newly connected customers.

The Benefit

The algorithm correctly identified 89% of “movers”. If implemented, this approach would save the Telecom \$460 M annually in attrition related lost revenue. The model was not implemented as the industry adopted *local number portability*, thus enabling a much easier method for recognizing customers.