DataProphet was approached by a Telecom company to help improve their ROI upon their marketing and infrastructure upgrade strategy. Working in close collaboration with the client, DataProphet deployed their state-of-art machine learning solution to identify the different types of customers using account information and usage behaviour.

The scatter plot shown to the right describes user extraction across different classes of customers - paying and free users. The extraction illustrates the strength behind clustering as a machine learning technique to discover natural structure and similarities between customers in their usage behaviour.

**Impact Ratio of User Clusters**

- **Cluster 1**: 24% of revenue, 15% of population
- **Cluster 2**: 13% of revenue, 6% of population
- **Cluster 3**: 12% of revenue, 8% of population
- **Cluster 4**: 18% of revenue, 6% of population
- **Cluster 5**: 22% of revenue, 8% of population
- **Cluster 6**: 6% of revenue, 15% of population

**Cluster Opportunities**

0. Grow customer spend with direct marketing.
1. Retain users through infrastructure upgrades.
5. Grow population and customer spend with direct and indirect marketing.

**Examining The User**

After identifying the correct number of natural subpopulations, DataProphet built up a profile for the defining characteristics of their users to allow the client to interpret who they were.

These profiles could then be used for both Above-the-Line marketing to target new customers, as well as Below-the-Line marketing to increase share of wallet upon existing customers.

**Results**

In collaboration with the client, DataProphet’s advanced customer segmentation was able to discover four significant opportunities in the data. This included identifying a small group of users that used the service for free but would go on to be responsible for 42% of revenue from users paying for the first time - a key business priority. DataProphet identified the unique behavioural characteristics of these users, who account for only 18% of total users, to allow the Telecom company to target marketing directly at them and apply learnings from their characteristics to the rest of the business.

These data-driven insights were used by the client to improve ROI on marketing as well as justify targeted infrastructure improvements.