# Machine Learning Models:

# **Churn Mitigation**

#### Vertical

- Industry: All
- · Industry Detail: Telecom

# **Use Case Highlights**

- Applied machine learning to identify customer behavior that led to churn
- Personalized churn reduction treatment for Tier-1 global wireless telecommunications service provider

#### **Use Case**

- Mature wireless market: saturation and slow growth rates
- Substantial churn across both pre-paid and post-paid accounts with no clearly identifiable cause for churn
- Determine specific marketing actions to successfully mitigate churn

# **Business Impact**

- Reduced churn: Achieved 20+ bps annual churn lift
  - Revenue lift: Achieved \$145MM/year in revenue lift or approx. \$2/subscriber across targeted base
- Results A/B tested against existing efforts: Churn and lift are relative to existing campaigns

# **Technical Highlights**

Multiple models configured to identify who, when and how

- Who: Identify high-risk subscribers
- When: Identify likely timeframe subscribers will churn
- How: Select retention strategy to best reduce churn

Output of model drives highly targeted marketing campaigns

#### **Data Sources and Features**

- Subscriber Data
  - · Usage and Consumption
  - Billing and Payments
- Product Information
  - Handset Details
  - · Additional Features
- Interaction Patterns
  - · Customer Service
  - · Marketing and Promotions
  - Customer Experience

- External Data
  - Competitor Data
  - Demographics Data
- 4,000+ Signals give a 360\* view across entire lifecycle of every customer
- Injected intelligence in customer behavior patterns
- Automated campaign targeting through highly targeted and granular offers to address specific churn drivers

# **Leveraging Model Output**

- Model scores individual churn drivers – cost, technical issues, old phone, etc.
- Understanding individual churn drivers helps customize treatment options for more effective mitigation
- Reinforcement learning algorithms create a feedback loop—promotions adjusted as dynamics in the world change



