



CASE STUDY

**COMMUNICATIONS
TECHNOLOGIES COMPANY**

CHALLENGE

- A global communications company faced Avlino with a challenge - *“how can we resolve an increase in call volume about poor cell phone service quality”*.
- The client’s process for providing tech support was taking 2 hours to determine if there was a call coverage issue, or any other non-network issue.
- The project objective was to:
 - Reduce time for resolving each call.
 - Minimize the need for a level II technician to resolve the trouble ticket.

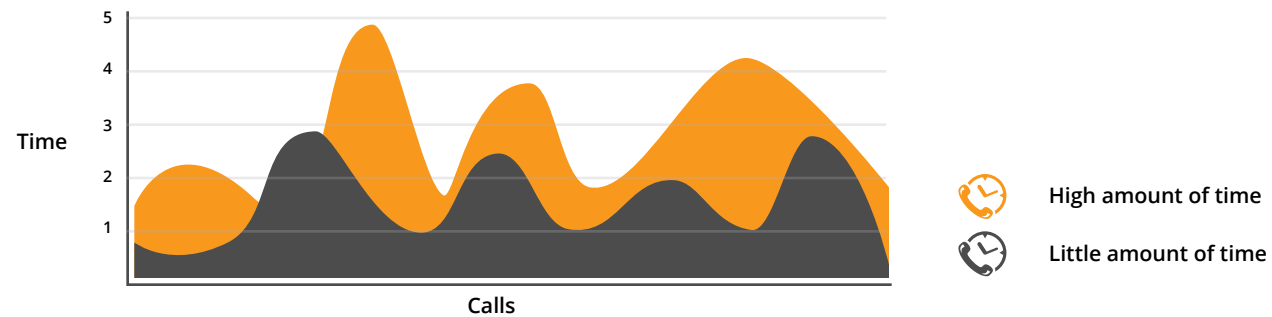


STRATEGY

- The client provided 3 years’ worth of call-log data with 140 network parameters.
- Avlino’s role was to determine the top 10 parameters that impacted call quality, analyze the data, and to accurately predict network coverage resolutions for the client.
- Call center transcripts were used to automatically categorize the nature of the call to define patterns using proprietary text mining techniques.
- Avlino used various statistics and machine learning models such as RF, Adaboost, and Differential Evolution algorithms to determine the best solution.
- Based upon the correlation amongst the top 10 parameters and call-text processing, Avlino developed a machine-learning based predictive model.

RESULTS

- Avlino created a self-learning predictive model, which was implemented in the call center infrastructure of the client.
- As a result, 83% of the calls today are automatically resolved by Avlino's solution, without the need of a level II technician.
- The average time of resolution has dropped from 2 hours to 4 minutes.



- ROI:

