

# The Buck Stops at Level I

## Predictive Modeling for Call Center Automation

### CASE SUMMARY

Perplexed by an increase in call volumes about poor cell phone service, a leader in global communications knew it was time to call on a top notch analytics company that would provide solutions in an efficient, cost effective manner. The problem was clear- the amount of service tickets took on average up to two hours to resolve. Was the customer experiencing a coverage issue or another non-network related problem? To determine the answer, the process involved intense human intervention on the part of the Level II technicians. In other words, the level I technicians logged the calls to document the situation but, could not isolate the issue due a noisy CRM dashboard. Furthermore, Level II technicians took more than two hours to resolve because there were about one hundred and forty possible triggers that could have contributed to the customer's service problem.

### Alenza

Equip your technical support staff with a unique solution that quickly identifies the nature of the call to facilitate efficient resolutions.



Use data as a competitive tool to automate business functions using machine learning & predictive modeling



Machine Learning



Reduce resolution time



Predictive Modeling



Minimize calls referred to Level II technicians

## DEFINING CORRELATIONS AND ISOLATING KPI'S

The Avlino's approach to the engagement was to determine the top ten KPI's, or network parameters, from the vast 140 that impacted the call quality. The client provided three years of call-log data for analysis to accurately predict network resolutions for the client. Avlino's strategy was twofold, equip the Level I technician with the necessary information to immediately resolve a call, and create a model that automatically isolates the top ten easily identifiable characteristics of the caller.

First, using call center transcripts, patterns were defined using proprietary text mining techniques to automatically categorize the nature of the calls.

Next, using a quantitative analytics approach based on statistical and machine learning models, algorithms were used to define correlations and to isolate the top ten KPI's.

Finally, using an ensemble of both techniques, Avlino developed a machine-learning model that predicted the reason for the dropped calls based on the caller profile and the key network parameters that impacted the specific calling pattern. Automation enabled the Level I technician to quickly identify the nature of the call and resolve eliminating the need to create a ticket to advance to Level II.

**Twofold strategy to equip technicians with the necessary information to immediately resolve a call and create a model that isolates identifiable characteristics of the customer decreasing wait times.**

### Alenza Delivers

Based on the self-learning predictive model that was implemented on-site in the provider's internal infrastructure, the average time for a customer resolution dropped from two hours to approximately four minutes. As a result of Avlino's solution, eighty three percent of the calls today are automatically resolved without the need of a Level II technician.

- Decrease in call escalation
- Increase customer satisfaction with shorter wait time
- Increase employee productivity

**Find out how you can use predictive analytics to increase customer satisfaction and decrease cost, engage Avlino today!**

### About Avlino

Avlino Inc. provides solutions and services in data analytics. Our primary focus is to simplify data analytics in a quest to nurture the "Citizen Data Scientist" concept by removing the complexities and replacing them with pure insight. Our robust solutions add value to customers through high quality, cost effective, and efficient solution delivery that integrates business strategy, data science, and data engineering models.

**Request a Quote Today!**

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