Huntsville Utilities Optimizes Staffing and Improves Call Center Performance

Huntsville Utilities

Success Story

Utilities

ProModel

CHALLENGES

Huntsville Utilities, a city owned utilities company in Huntsville Alabama, provides water, gas and electricity to over 180,000 customers covering 330,000 meters in Madison County and parts of Marshall and Limestone. Huntsville Utilities maintains a call center staff of over 31 personnel. Even with 31 FTEs, average wait time for calls was well over one minute. The Utility was not satisfied with that level of service. They wanted a tool that would allow them to take into consideration various skill levels for different queues, and other options, like part-time and wheel scheduling in an experimental way. They wanted to test these options before changes were implemented on the call center floor.

"ProModel understood our requirements and provided an outstanding solution which helped us reach national phone center standards we had never before met in our history."

— John Olshefski
VP for Customer Care
Huntsville Utilities

OBJECTIVES

Huntsville Utilities wanted a discrete event simulation model of their customer call center:

- To recommend the optimal number of staff to achieve the goal of all calls being answered in less than 1 minute

- To accurately predict resources needed to achieve required service levels during periods of variable customer call demand
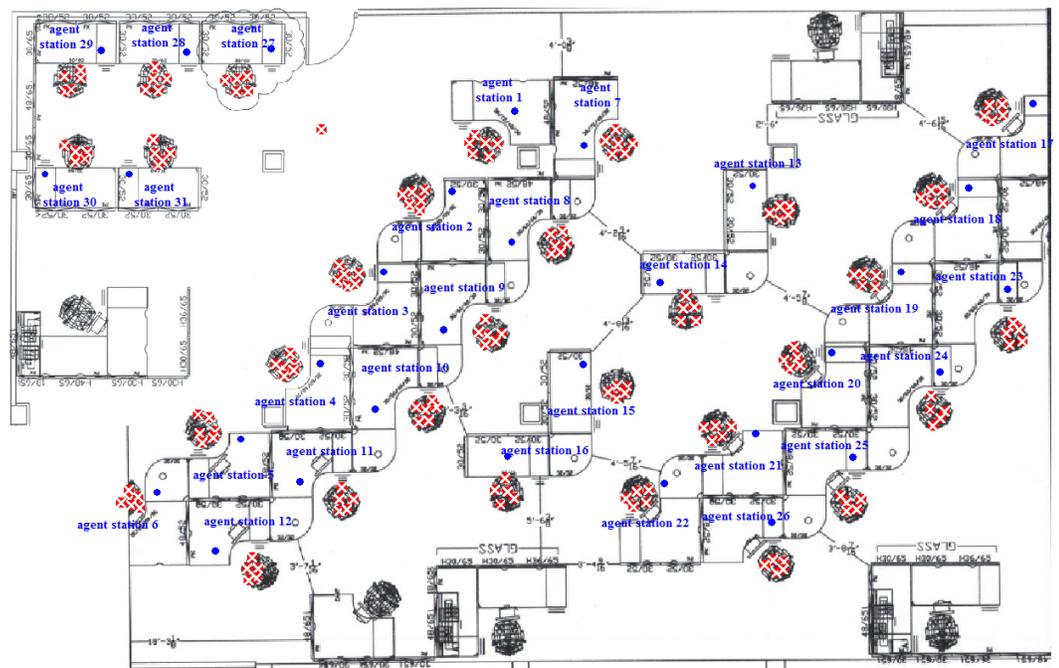
SOLUTION

ProModel consulting worked with the Huntsville team to build an accurate model of call center operations. The first item they investigated was abandoned calls. Abandon call tracking revealed that there was a drop-off in the number of agents during the 6-7 pm hour, due to the shift ending and previous shift agents leaving. This shift change was a contributing factor to the slight increase in abandoned calls during this hour of the day.

Another observation revealed that the "Mean Hold Time" metric was distorted by the inclusion of callback calls. Call backs needed to be excluded, since the caller is not in fact "on hold" during the interval when they are waiting for the agent to return the call. This model change resulted in an improvement in the call hold time. The use of the callback option reduced the mean hold time by 25%, from 0.74 to 0.55 minutes per call.

Simulation determined that a revised shift schedule would address the morning/evening queue backlogs and would only require 28 instead of 31 agents. The updated model (new shifts and callback option added), was evaluated using SimRunner optmization. Experiments are generated by SimRunner to seek the parameter combination that best achieves the defined objectives. In this case those were to minimize the total number of agents and the number of abandoned calls.

VALUE PROVIDED

The following recommendations were made:

- Add new shifts to address morning/evening queue back logs
- Increase staffing levels from 7-9 and 5-7
- Expedite Agent training for coverage of billing queue

After these recommendations were implemented, improvements were revealed:

- 28 agent coverage surpassed 31 agent coverage (baseline)
- 28 agent mix has two 5 hour agents vs. 1 agent on a 5 hour shift (baseline)
- Abandoned calls were reduced from 5.43% to 4.62% with 3.37 fewer agents/day for August
- August hold time was reduced from 1.33 to 1.18 minutes
- Percent of abandoned calls was reduced from 5.33% to 4.54%
- Percent of calls answered in less than 1 minute improved from 80% to 81%

The call center supervisor revealed improved statistics for the month of November, including 95.74% of calls were answered in less than 60 seconds and that the call center has maintained an average abandoned call rate of 1.1% since November. Because of these improvements, the simulation generated $80,000 in actual savings for an ROI of 300% for Huntsville Utilities.