Maintaining Service Quality
Will You Be Proactive or Reactive?

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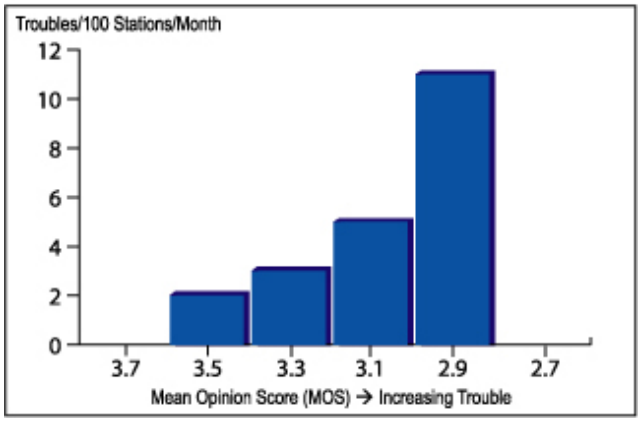
With the "meltdown" of the Telecommunications Industry over the past two years, maintaining service quality is a tough challenge. Caught up in the paradigm shift in technologies and competition, Service Providers and Equipment Manufacturers are stalled, losing revenue, downsizing their work forces, cutting budgets and freezing capital expenditures. One unfortunate casualty is management's conviction to provide and maintain consistently good service quality. However, forfeiting service quality comes at a high price, to handle the inevitable increase in customer troubles and lost revenue. Revenue is preserved when service quality is near optimum. Consider the cost model in Figure 1.

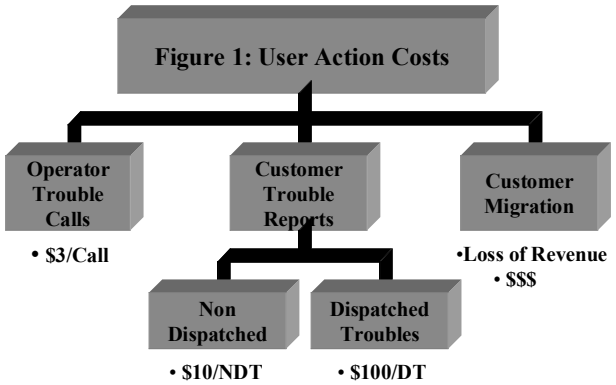
As quality of service decreases, users' overt actions increase exponentially. So do the costs of these transactions. For example, as customer ratings of network quality decrease, calls to operators increase more than five-fold, just in the range from Excellent to Good service ratings. Optimum performance is midway between Good and Excellent on a 4-point scale. Assume a switch serving area of 50,000 customers, and that these customers place on average three calls per day, or 150,000 calls. There would be from 300 to 1,650 complaint calls to operators. If it costs $3 to handle each complaint (costs may be more), then daily operating costs increase from $900 at optimum performance to about $5,000 at a Mean Opinion Score (MOS) of 2.9. Annual operating costs for this customer action range from $328,500 to $1,806,750.

FIGURE 2: CUSTOMER TROUBLE REPORTS



Customer Trouble Reports follow this same exponential curve as quality decreases. At near-optimum performance, a good Trouble Report Rate (TRR) is 2 troubles per 100 stations per month. TRR increases from 2 to 11 troubles per 100 stations per month, over the same quality range as shown in Figure 2. For a serving area of 50,000 customers, these rates produce from 12,000 troubles per year at optimum performance, to 66,000 troubles at just below the Good rating.

Trouble Reports fall into two categories, Non-Dispatched and Dispatched. Assume a 75% non-dispatch rate, $10 to clear a non-dispatch trouble and $100 for a dispatched trouble. Annual operating costs would increase from $390,000 to $2,145,000.



A more important user action is Migration to competitors. The cost penalty is total loss of revenue. Migration is expected to follow the same exponential curve. One large service provider, with nearly a 40% annual Migration or Churn rate, had service quality at the 2.8 to 3.0 MOS rating. Costs to replace this lost revenue were huge and nearly put this company out of business before they could improve service quality. Considering the 5-fold increase of user action on our sample chart then, at optimum performance, it should be possible to maintain a Migration rate of less than 10%. Competitive marketing and pricing may keep this higher, perhaps in the 15% to 20% range.

A proactive process should be used to prevent service quality from deteriorating below optimum performance. In economic downturns, it may be necessary to reduce the workforce. For those employees who remain, it is even more important to provide sufficient tools and support to maintain service quality. Technicians should be equipped with modern test instruments that improve their productivity, to help prevent repeat visits, reduce trouble reports and customer tendency to migrate to competitors. A proactive maintenance philosophy will contribute to profits and preserve revenue. A proactive approach has other benefits also. Technicians enjoy better job satisfaction and they are able to respond more effectively to the unavoidable customer service problems. It is this author's experience that payback, for investment in modern instrumentation and an effective Quality Assurance program, is in terms of months, not years.

About the Author - Larry DiBiaso is COO of Talon Test Systems, LLC. In 1984 he founded dB TELCO to provide automated test systems and services for field technicians and network testing. He has over 35 years experience, including 16 years at AT&T and Bell Laboratories. He has held several leadership roles in national and international performance standards.

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