

# Process Mapping & Optimization Help Reduce Turnaround Time and Cost





## Business Challenge

The client was trying to accomplish the following:

1. To reduce cost for their IT helpdesk on handling trouble tickets logged by their user community (company employees),
2. Visibility to contract negotiation opportunities as the company was looking out to hire new vendors.

Company's existing IT support had been outsourced to two vendors with each of the vendors providing the support through four tiers [Vendor 1: Tier 2, 3, 4 | Vendor 2: Tier 1, 2, 3]:

- Tier 1 as the helpdesk resolving low complexity issues,
  - Tier 2-3 as production support aimed to resolve the medium to high complexity tickets except those related to application development
  - Tier 4 as the application development team,
3. Sustainable improvement in the enterprise.

## Customer Profile

The Client is a premiere global communication provider headquartered in the US and provides communication services to enterprise, government and carrier customers via an extensive fiber network on three continents and has a global services platform that reaches out to more than 500 markets in over 60 countries.

**Industry:** Information Technology

**Annual Revenue:** \$3.5 Billion



**\$6 MM**

Potential Annual Savings



**40%**

Reduction in Current Ticket Cost



**8**

Weeks for Project Completion

## Project Objective

1. Identify primary cost drivers in IT services,
2. Drive optimal cost reduction through efficiency improvements by focusing on people, process and services, thereby resulting in quantified expected benefits,
3. Baseline the process by providing listing of identified process improvements for contract negotiations and vendor management.



## Our Approach

The project was guided by the following set of broadly stated research objectives:

- Preliminary volume analysis to understand the major call & ticket volume contributors and a high level understanding of workflows associated with the present method of operations,
- Identify factors driving sales performance through detailed call listening exercise and data analytics
- Detailed process mapping to identify the demand drivers and existing workflows aimed to enable the client to visually characterize their key processes,
- Identification of key factors driving call volume by using statistical tools,
- Action Planning - Communication of the proposed solution,
- Standardization of process documentation for future references.

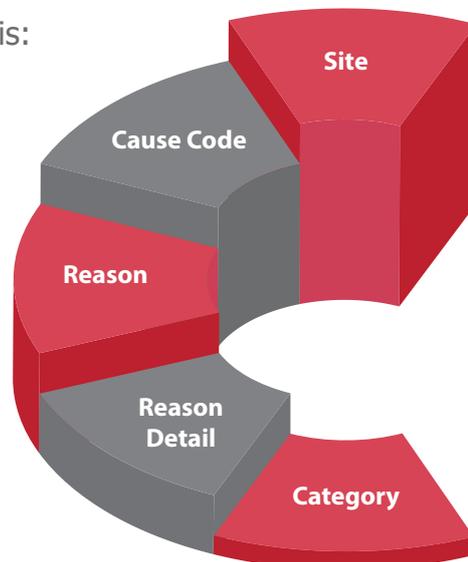
## Our Solution

Here are the key phases by which our team arrived at the solution:

### Preliminary Volume Analysis

- Narrowed down to top 3 sites that drives 80% of the ticket volume through study of data for past one year,
- During the study, it was found that over 70% of the ticket volume is contributed only by 3 causes, further split into 8 reasons and 20 reason details,
- Service levels on ticket handle time were driven by the Severity (1- 4, 1 being the highest & 4 being the lowest) and it was found that majority of users have the tendency to assign highest severity to their tickets (85% of the tickets were marked as Severity 4).

The following figure shows the levels of analysis:





## Detailed Process Mapping

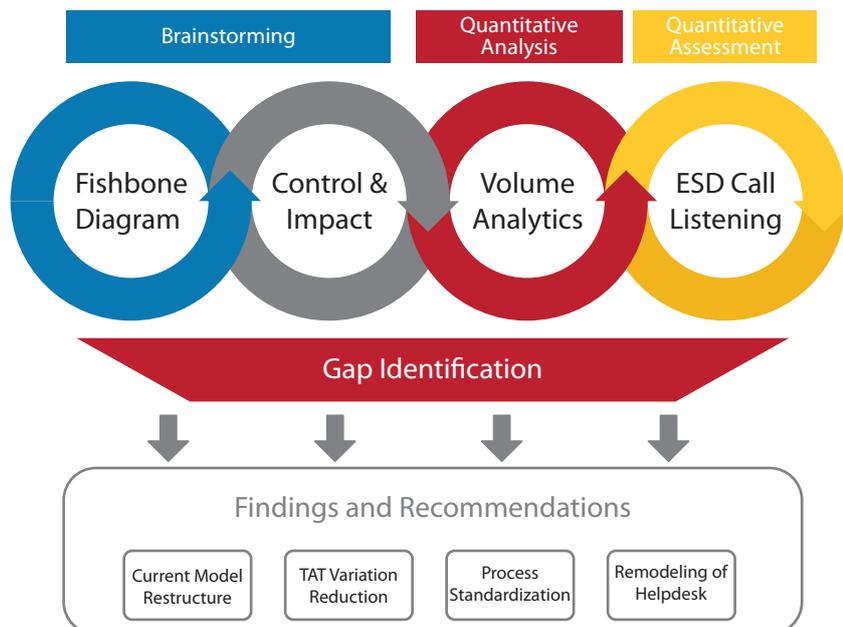
The process workflows for each of the 20 reason details were mapped in detail, separately for each vendor based on the following logical distribution:



With the help of the detailed process maps, the Turnaround Time (TAT) was analyzed to understand the variation between the two vendors and it was found that one of the vendors was taking lesser time to handle a ticket at Tier 2 & 3.

## Key Factor Identification

The TAT was further drilled down to identify the statistically significant factors for each vendor. These factors were then discussed in a brainstorming session with the vendors to find out the top reasons with the help of statistical tools like Cause & Effect Analysis and Control-Impact matrix. The results are as below:

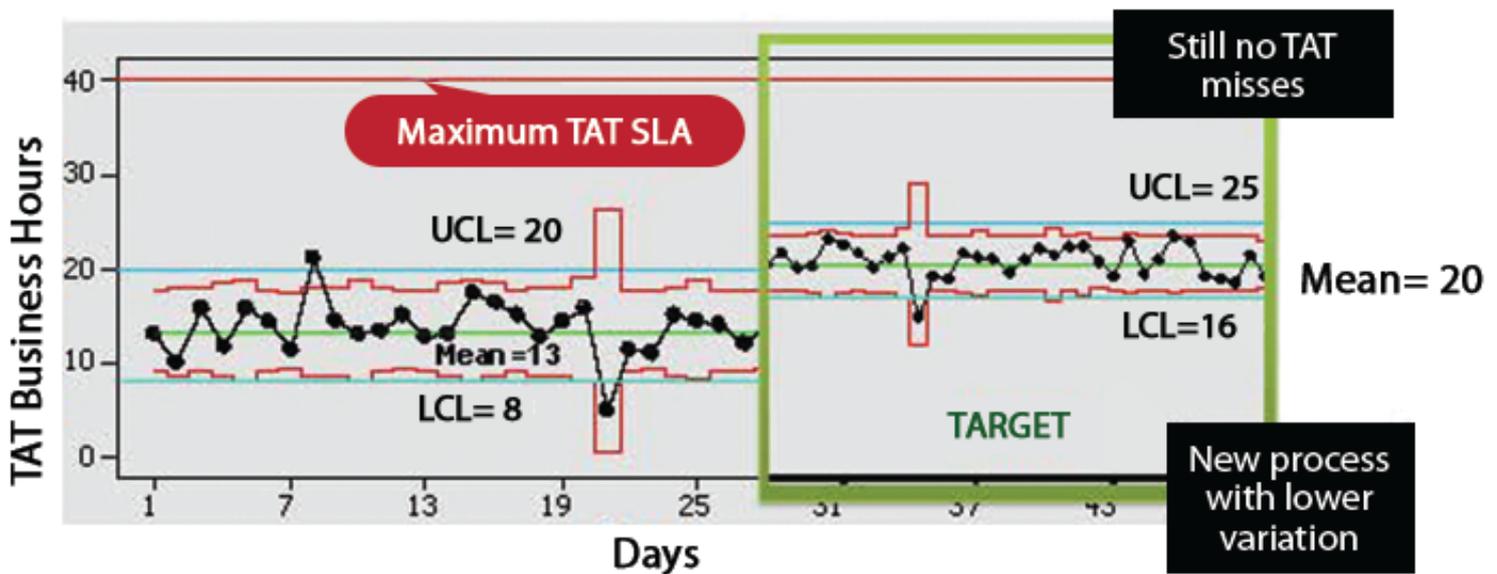




## Current Model Restructure

Vendor 1. had a fairly smaller time spend (or touch time) to process the ticket as compared to that of Vendor 2. With ticket cost being a function of time spent, it was analyzed that Vendor 1 had staffed more resources than required and was paid a very high ticket cost. Moreover, Vendor 2 was not consistently measuring their time spent which led to an assumption of a higher (than usual) figure for time spent in the TAT analysis.

Even though process model restructure can potentially increase the TAT by a few hours, however the gap between current and target TAT allowed the staff to be reduced considerably as shown in the following control charts (X-Bar R).



### Process Optimization through TAT Variation Reduction & Process Standardization

The data dependencies on user community inflate the overall TAT by 5-8 business hours. This also indirectly impacts the touch time as the technician takes time to update the records or communicate with the user to explain the need of required data.

Recommendations were provided on the following key factors deduced during the analysis, which were responsible for high variation in TAT:

- User unavailable to confirm the ticket resolution,
- Lack of user training on ticket logging,
- Inadequate / incorrect details supplied by the user in the logged ticket,
- Approver's unavailability for approval request,
- Lack of documentation for older applications supported,
- Additional time spent in cases of new issues (cause codes / reasons / reason details),
- Inability to detail out issues in ticket logging application,
- Technician knowledge on new applications / issues.



Through the following recommendations, the process optimization would result in reduction in turnaround time variation and thereby making the process more predictable with productivity boost:

Category	Summary of Recommendations
Process Change	<ol style="list-style-type: none"> <li>1. <u>Limit user confirmation step</u>, only issues with high probability of incorrect resolution should be confirmed from users</li> <li>2. <u>Modify approval process</u> to identify alternate approvers to avoid delay in getting response</li> <li>3. Modify ticket expediting process by <u>applying an expedite fee to the escalator</u></li> <li>4. Develop a process for transitioning <u>new applications to Helpdesk faster</u></li> </ol>
Automation	<ol style="list-style-type: none"> <li>1. Automate the <u>confirmation process</u></li> <li>2. Automated <u>notification</u> during ticket logging in cases where approval needed</li> <li>3. Prohibit users from re-opening old tickets for new issues</li> <li>4. Prohibit users from opening tickets with multiple issues</li> </ol>
User Awareness	Educate users regarding - <ol style="list-style-type: none"> <li>1. Importance of resolution confirmation</li> <li>2. Avoiding the use of “issue not listed” while logging a ticket</li> <li>3. Detailing out the issue as much as possible with all relevant details</li> <li>4. Impact of expedited tickets on the TAT for other tickets</li> <li>5. Impact of multiple issues on a single ticket on TAT</li> <li>6. Cost of expedites and calls to the Help Desk for issues</li> </ol>
Performance Monitoring	<ol style="list-style-type: none"> <li>1. Track “pending” status of tickets</li> </ol>

## Results

Our efforts resulted in providing a complete set of optimized process and potential annual savings of \$6 Million (\$ 515k per month). It also led to a significant reduction of 40% in their current ticket cost. The process model restructure would potentially allow the staff to be reduced considerably.

There was a comprehensive report shared with the stakeholders within a period of 8 weeks and was hugely appreciated for the recommendations on the strategic placement of vendors as their current managed service agreements appeared to have structures those were limiting /unfavorable to the company's interests.

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