Total Quality Management (TQM) and ITSM – A Practical Recipe for Continuous Service Improvement (CSI)

Maziar Adl
Todays Discussion

› Total Quality definition, principles and why it is important?
› Why TQM is equally or more relevant in a service industry
› An approach to establishing a design organization
› Why investments in Design Services and Processes are essential in continuous improvement and high quality services?
› What are some examples that may help you in justifying the implementations of such processes
To attract new business and inspire repeat business, a company must offer more than a basic product.

Service Quality: Forethought, Not Afterthought

Journal of Business Strategy

Frank K. Sonnenberg 1989
A Note about Quality

Total Quality Management (TQM):

“Integration of all functions and processes within and organization to achieve continuous improvement of the quality of the services”

It’s all about customer satisfaction

Without focus on quality, long term success in service or manufacturing is questionable:

› Japans success in manufacturing
› The trade deficit and Malcolm Baldrige act during the 80s in the US

ITIL bases many of its principles and practices on TQM:

› Fitness for Use – Juran on definition of Quality
› Plan, Do, Check, Act – Deming on Continuous Improvement
Definitions of Quality

Quality definitions vary between the guru’s:

› Fitness for use - Juran
› Conformance to requirements – Crosby
› The loss a product causes to society after being shipped, other than losses caused by its intrinsic functions – Taguchi
Common amongst all “Quality Gurus”

› Inspection is not the answer, **prevention** is
› **Top management** and **leadership** is essential
› Quality programs require **organization-wide** efforts
› **Quality first** and schedule second
Service Quality is where the opportunity is:

Lessons from manufacturing:
“Get out the production” and “meet the schedule” reduced deep concerns for quality amongst workers.

Customers were willing to pay 10% more for high quality service –

Frank K. Sonenberg - Service Quality: Forethought, Not Afterthought 1989

TQM originally focused on manufacturing but more than 90% of our work is service based.
Transforming Service Delivery Organization – A Case Study

Problem

 › Execution of projects with little planning or dedicated staff resulting in:
   ▪ “Firefighting”
   ▪ Unpredictable services and service levels
   ▪ Cost pressures
Transforming Service Delivery Organization – A Case Study

Approach

› Apply TQM principles in Service Delivery Environment

› Emphasize on up-stream ITIL lifecycle processes

› Change the **culture** not just the process and tools
The Organization

**Design and Planning**
- Overall Architecture and Technologies / Standards
- Capacity Requirements
- Availability Requirements
- Training Requirements
- POC requirements
- Design Diagrams and Requirements
- MOUs/SLRs
- Success Criteria
- TCO Calculations
- Alternatives
- Backup requirements
- Process / Procedure requirements
- Monitoring requirements
- Access Requirements
- Standard Requests
- Engineering and Ops review and acceptance
- Continuous improvement or scalability plans
- Approval of the Design from Peer Groups
- Approval of the Design from Chief Architect
- Approval of the Design from Customer

**Build and Transition**
- Design Validation / Review and Acceptance
- Procurements
- Configuration and Installation
- Update and Audit of Asset Lists/CMDB
- RFC Execution and Coordination/Communication
- Rollout Plan
- Backout Plan
- Risk Assessment for RFC
- Ops Training and Handoff
- QA and Validation of Systems
- Feedback to Design Team
- Approval of Rollout from Ops
- Approval of Rollout from Customer
- Approval of Rollout from Design group
- Support and monitoring during cool down/warranty period

**Operations**
- System acceptance
- Registering application in ops (contact information, service levels, monitoring and backup information, new or changed procedures, Access levels)
- Update procedures
- System lockdown
- QA and Validation of Monitoring, Backups and Access
- Assist in Negotiating SLRs/SLAs
- Freeze and Warranty Period Management
The Culture

› Focus on the vital few
› Understand the needs of the customer
› Review and improve the service not just the product
› Consider service as a whole not just technology
› Increase transparency
› Reduce **cost of quality (COQ)**
  - Upstream studies in requirement and business patterns helps eliminate problems and incidents downstream
  - Seek opportunities for optimizing cost and avoiding problems
Design Group Mission

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Reduce cost of downstream deployment and maintenance by conducting analysis of systems, designing solutions and informing and seeking approval from customers on new and upcoming solutions.

- Prevent problems and incidents from happening in the first place
- Supporting “fitness for use”
- Optimizing costs
- Reducing rework

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Strategy
- Incident Management
- Problem Management
- Access Management
- Event Management
- Request Fulfillment

Design
- Service Solutions
- Capacity Management
- Availability Management
- Catalog Management
- IT Service Continuity Management
- Security Management
- Service Level Management
- Supplier Management

Transition
- Change Management
- Knowledge Management
- Release and Deployment Management
- Service Testing and Validation
- Configuration Management

Operations
- Continuous Improvement
- Design
## Service Design Package

- **Holistic approach to service**
- **Includes processes and people and not just technology**
- **Is reviewed by executives as well as operational staff and engineers**
- **A living document throughout the service lifecycle**
- **Subject to change control process**

### Opportunities Seized

<table>
<thead>
<tr>
<th>Opportunity Description</th>
<th>Likely</th>
<th>Partial</th>
<th>Unlikely</th>
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</thead>
<tbody>
<tr>
<td>We found an opportunity to cut cost on licensing SQL servers</td>
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<tr>
<td>Mitigated risks of transition of data and capacity shortage during transition</td>
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<tr>
<td>SLA2/S switching is an exceptional agreement and we needed details to make sure we meet the customer needs appropriately</td>
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<td>Payment of software licenses</td>
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<td>Inadequate drives at the time to backup the infrastructure</td>
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<td>Archival requirements</td>
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<td>A potential flaw/risk in the design by letting the web server act as domain controller</td>
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<td>Limited patch management capability considering that SDR is in an exclusive network</td>
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<td>Capacity and cost analysis on moving SDR to the County network</td>
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<tr>
<td>Opportunity to improve network switches</td>
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<td>Storage capacity long term</td>
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<td>Limited Monitoring capability due to exclusive network</td>
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**Total:** 1 4 7

- 7 opportunities seized
- 4 opportunities would have been too late and more costly to detect and fix
Capacity Report

- Focus on the vital few
- Published monthly
- One person accountable for preparation
- Data was collected from all other organization groups with engineers responsible in each area for providing data
- Aligned with the Service Catalog
- Includes a summary and detail analysis statement
- Reviewed and approved by:
  - CTO
  - Account Executive
  - Sr. Management
## Capacity Report - Summary

<table>
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<th>Service Area</th>
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<th>Jul</th>
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Example 1 – Storage capacity

Benefits:
- Optimum re-order points
- Time for planning
- Transparency and executive briefing
Example 2 – Virtual Cluster Failovers

Benefits:
- Reduce risk of failure in failover
- Increase up-time
- Optimize load
- Transparency
Example 3 - Enterprise Bandwidth to the Internet

Benefits:
• Study patterns of business behavior
• Understand thresholds and performance requirements
• Increase awareness throughout the organization
The Methodology

We are IT...
We did Agile too...
Or is it CSI?!

› **Start** somewhere!
› Make the first version with **what you have**
› *Work in small steps*
› **Keep improving** – set **milestones** to improve
› Continuously **market** the service
› Gain **momentum** and grow
Results

› Reduction in incidents and work orders post project
› High availability on virtual infrastructure
› Cost control due to forecasting and optimization in purchasing
› Increased transparency resulting in improved decision making across the organization
› Improved visibility into patterns of usage
› Increased staff awareness of quality and process control
› Increased customer satisfaction due to transparency and due diligence
Keys to Success

› Culture of quality
› Executive support
› Think big and holistic
› Start small and grow
› Keep the momentum
› Communicate, communicate, communicate

Stay *a little* Hungry...!