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“Telcordia Technologies: The Journey to High Maturity”

In “Telcordia Technologies: The Journey to High Maturity,” Bill Pitterman recounts how his company, Telcordia Technologies, was able reverse a troubling trend and make software quality and customer satisfaction paramount concerns. In 1994, Telcordia was forced to come to terms with staggering deficits in their product and process: defects in code were extremely high, customer satisfaction was abysmally low, and releases were frequently late. An internal audit concluded that company management lacked commitment to quality.

Attempts to correct Telcordia’s problems began in the early 1990’s. Although some had benefits, they largely contributed to bureaucratic overhead and were more work than actually producing code. Because competing standards were enacted frequently individuals were averse to making lasting changes. Then, in 1994, a small team within Telcordia began to work on a comprehensive and durable process specification that would increase efficiency and improve quality and customer satisfaction. Toward this end, they identified four overarching principles: Do what is right for the business; Don’t overengineer the process; Let your common sense prevail; Never look back.

Before any progress could be made, Telcordia needed to define precisely what constituted a good quality assurance system. The process specialists tasked with this interviewed teams and collected feedback. In the end, they were able to compile a three-tiered system that integrated existing corporate quality standards, accepted methodologies, and team-specific procedures.

Telcordia, recognizing that such a drastic change would need the complete support of management, instituted a two-tiered management team to oversee the investigation and implementation of these teams. In the upper echelon of this team were top members of company management: Telcordia’s president, chief operating officer, and corporate vice presidents. The lower tier, directly responsible for the actual implementation of the system, held key representatives of Telcordia’s many departments. The company leaders in the upper tier of this group was instrumental in cultivating support and excitement for the upcoming changes, while the implementation team’s familiarity and proximity to various departments gave their proposals weight and legitimacy.

This approach had the effect of growing a sense of employee ownership of the quality system. This was especially important when Telcordia moved to a challenging phase of the new quality system: managing the software quantitatively. During this phase metrics were introduced to track code quality and defects. They found that these efforts made it possible to visualize and address potential issues. The author notes that these practices continue to be a effective practice to measuring project progress.

Finally, the author notes some staggering results. Among these, a 94% reduction in defects, customer satisfaction above 95%, and a 64% reduction in the costs of testing code.