

# ascend

Taking your airline to new heights

## JET STREAM

A conversation with Wolfgang Prock-Schauer, the chief executive officer of Jet Airways.



### Special Section

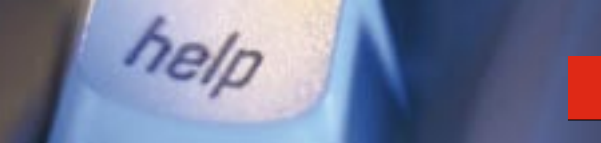
#### FUELING UP

A look at the rising cost of fuel and its effect on the industry.



#### INSIDE

6	Turboprops make strong comeback
36	WestJet saves US\$5 million annually
78	GOL scores big in Latin America



# Legendary Quality

*Companies that maintain the absolute highest levels of quality throughout their product and service offerings satisfy customer expectations time and time again.*

■ By Jay Packlick | *Ascend* Contributor

Companies strive to provide the highest levels of quality service for their customers, but identifying exactly what quality means to each individual consumer can be a bit tricky — and determining what constitutes the highest levels of quality and ensuring the same level is achieved time after time can be even more difficult.

But maybe the challenge isn't defining what quality means to each individual consumer but rather understanding exactly what consumers as a whole expect, what is acceptable to them and what keeps them coming back.

ers and training personnel whose different needs and expectations must be considered and met. And if every software solution in a portfolio consistently identifies and meets these expectations, legendary quality has been achieved.

A true quality-focused technology provider recognizes that customers expect quality products that work well, are usable and have a seamless level of integration.

One of the more common expectations from technology consumers is zero bugs, or defects. And while that's an important objective, there are many important dimensions that contribute to the total experience of a quality

Perhaps most important, however, is how well the system solves the business problem for which it's designed.

But it goes much further. Satisfying the end customer requires expanding the definition of "customer" and treating every member in the value chain as a customer. Thus, technical writers and testers function as customers for the development team; meeting their expectations should be a goal. The developer receiving a request for an enhancement estimate is a customer to the product marketing person who issues the request. Delivering on each of their expectations translates into better meeting expectations of actual customers.

As long as there are humans in the equation, mistakes are going to happen — things are going to be missed. Most failures to deliver on customer expectations can be traced to early origins. A bug in one part of the system might result from the failure to ask one simple question. The key is to detect problems as early in the process as possible and incrementally introduce improvements that enhance the development environment to prevent its reoccurrence. Improving quality this way can dramatically reduce costs and waste. Problems detected early in development cost a fraction of the expense necessary to make repairs after implementation, so it's critical to add that level of quality assurance and development improvement on the front end of the process.

To a great extent, the *Sabre Airline Solutions*<sup>®</sup> business began to adopt this strategy of improvement as early as 2000 with the introduction of "agile software development" as its standard development methodology. Agile, an iterative-based approach to development, introduced many techniques to increase value, boost performance and improve quality. The new approach involved several aspects including:

- A focus on people — improving communications and teamwork,

## HIGHLIGHT

**A true quality-focused technology provider recognizes that customers expect quality products that work well, are usable and have a seamless level of integration.**

For instance, a consumer can purchase a Mercedes anywhere in the world, and it's always going to be the same. There are no surprises and no disappointments ... the consumer walks away satisfied because he or she received exactly what was paid for and expected. That is "legendary quality." It's that level of quality that keeps consumers coming back for more.

It's no different in the technology arena. Every software solution has many different customers such as end users, purchasing agents, decision makers, information technology manag-

ers and training personnel whose different needs and expectations must be considered and met, including:

- Suitability and simplicity of use,
- Ease of installation and upgrade,
- Level of customer support,
- Resource consumption,
- System response times,
- Degree of product integration,
- Integration with new and existing business processes,
- Clarity and completeness of documentation.

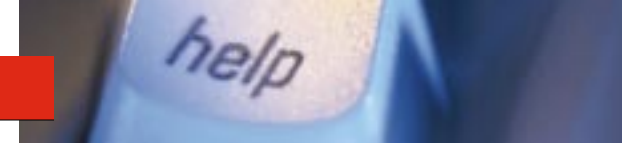


Photo by iStock.com

**Understanding what customers want, what satisfies them and what keeps them coming back represents legendary quality, and airlines that consistently keep their focus on their customers are most likely to retain and grow their customer base.**

- Close customer collaboration throughout the development life cycle,
- Frequent feedback-driven planning,
- A focus on early and constant testing — automated where possible,
- Rigorous software engineering discipline — improving design quality,
- Strict configuration management.

As part of the quest for legendary quality, this approach has risen to an even greater level:

- Developers and testers now partner every two weeks to write and automate acceptance tests even before the code is written. As a result, developers have a greatly improved understanding of what constitutes a completed project.
- The degree of functional test automation has been greatly expanded. In some cases, a full regression test suite can be run daily against an entire product.
- Where automation is not yet possible, testers collaborate with developers and the customer to clearly identify conditions of satisfaction and write test scripts to capture the knowledge.
- As much as possible, the evolving system is maintained in a production-ready state. Product demonstrations of the system under development are performed for internal and external customers every few weeks, providing constant feedback that enables developers to better steer the project and detect problems even earlier.
- Most product areas now collect feedback on a daily and even hourly basis as to the status of the evolving quality of each system. Validating tests are automatically run. Any failures are broadcast via e-mail to team leaders for rapid correction.

- When errors are found (either internally or following delivery) new tests are added to prevent inadvertent re-emergence of the same problem in the future.
- Empirical data in the form of reports and graphs are available to teams with important feedback about the degree of test completeness. In addition, trends in internal system complexity can be tracked and quickly acted upon, resulting in a reduction in development costs and error rates.
- On larger projects, a number of system users work with the development team, participating in iteration testing and product demos. This enables them to provide invaluable feedback and improve their own understanding of their business needs.
- Trends in defect rates for each product area are published monthly. Product leaders now closely track their area's performance in terms of the severity of errors found by internal testers versus those reported externally by end users. This has greatly improved awareness of the efficacy of each team's strategy to achieve their legendary quality goals.

Achieving legendary quality isn't just about identifying ways to boost product and delivery quality. It's also important to recognize poor quality so it can be avoided. A product that doesn't have bugs but that also doesn't provide the exact features a user needs is considered poor quality. A product with no functional defects that has all the features a user could want yet isn't user friendly signifies poor quality.

With this philosophy in mind, the *Sabre Airline Solutions* user experience group, formed in 2000, continues to be an active force in helping meet customer expectations time and time again by ensuring all elements of a quality product

are in place prior to product delivery. This group, expert in optimizing human-to-machine interactions, actively collaborates with actual end users and developers to simplify and enhance usability of new and existing products.

In addition, an organization's culture also plays a role in legendary quality. Creating a quality-driven culture requires a change in how every person in the organization thinks about and performs their work. Often, the biggest improvements in quality come from small, persistent changes in how work gets completed. These do not arise from management edicts or top-down strategies. They are identified and developed by team members working most closely with the challenges they face every day and those who work most closely with end users.

In recognition of this, *Sabre Airline Solutions* has taken a page from the Japanese tradition of quality improvement — the Kaizen (改善) event — whereby a series of workshops are conducted with each product area across *Sabre Airline Solutions*. These teams, including members from all functional areas, are encouraged to share their issues and challenges and openly discuss any and all impediments to delivering on customer expectations. Ideas are then developed to improve in these areas. After evaluating the relative merit, performance and effort to implement these changes, each area selects two to three quality improvement projects at a time. Improvement project leaders from each product area facilitate the execution of the identified action plans, resulting in several new, improved practices. Team members gain a sense of ownership and responsibility for the changes they create. Using these valuable methods, new innovations to improve development and delivery processes are being developed almost weekly. And pulling these teams together helps ensure customers receive the same service levels and quality products regardless of the solutions they use.

These improvements are just the beginning of long-term, ongoing efforts to achieve and sustain legendary quality. Rather than focusing only on adding new marketable features or improving algorithms, *Sabre Airline Solutions* invests heavily in quality enhancements, including improved product infrastructure, lowered cost of change and increased test automation.

A true culture of quality isn't a program or an initiative or even a five-year goal, it's the ongoing creation and nurturing of a culture in which meeting customer expectations is a daily focus for every person in the organization, regardless of their function. *Sabre Airline Solutions* expects legendary quality to be part of its product delivery not only today but in 2070. ■

***Jay Packlick is chief development innovation engineer for Sabre Airline Solutions. He can be contacted at [jay.packlick@sabre.com](mailto:jay.packlick@sabre.com).***