CA (formerly Computer Associates) has been carrying out major quality improvement initiatives since 2006. This includes a new software development methodology, PMI-based project management, testing, quality assurance, and CMMI-based process improvement. Rex Black, President of RBCS, has worked with CA to help design and execute these initiatives. Recently, Rex had a chance to talk to Chris O’Malley, Executive Vice President and General Manager, about CA’s commitment to quality, how Chris sees that commitment transforming CA’s software, and what the benefits will be to CA customers.

Question: So, Chris, CA is more committed than ever to quality. What do you want Testing Experience readers to know about that commitment?

Answer: We are entirely focused on ensuring the highest quality and consistency of our customer’s experience. The foundation of a world-class customer experience is based on maintaining the highest levels of quality. Not only are we committed to maintaining the quality for each of our applications, but we are also committed to delivering a family of products that interoperate smoothly together. In addition, performance, security, usability, and accessibility are all key attributes for our customers, that we are committed to delivering.

Question: Chris, those sound like good commitments. How does CA intend to translate those commitments into actions?

Answer: To set the direction, we have adopted a quality assurance policy. To implement that policy, we are funding several initiatives to improve quality. These initiatives will ensure that our tactics, both in terms of day-to-day activities on projects and step-by-step long-term process improvements, are aligned with our efforts to be best in class.

We are investing significantly in testing and quality training; as you know we have the RBCS team delivering training worldwide, including the ISTQB Foundation courses, and we have RBCS e-learning courseware available enterprise-wide starting in November.

To make sure we are efficient, we are investing in testing centers of excellence in Prague, Beijing, and in Hyderabad. These are not just low-cost operations. We are providing the same level of training and skills growth to these QA Engineers to ensure the highest quality and consistency of our customer’s experience.

Another efficiency dimension of our quality initiatives is our focus on test automation. We are taking new and innovative testing practices developed by some of our leading product teams, and propagating that expertise worldwide. For example, you co-wrote an article on our WATIJ effort in the Bellevue offices, and Andy Brooks and his team contributed a sidebar to your new edition of Managing the Testing Process that discussed the test management automation in place within his group.

Question: Sometimes quality initiatives like this lose momentum due to lack of senior management support. What level of executive sponsorship does this initiative have?

Answer: Our quality initiatives have the highest levels of support. Ultimately, these are sponsored by Ajei Gopal, an Executive Vice President who reports to the CEO. As you know, Rex, having met Ajei, he is very focused on quality.

Now, let me tell you why this initiative has staying power. Our quality initiative is a key element of our brand. CA wants to be known for excellence in customer experience. We believe, appreciate and understand the value that quality brings to our customer experience.

One reason for loss of momentum is the lack of measurable results. In our case, our initiatives include putting in place a comprehensive set of testing and quality metrics that will provide clear, measurable return on investment. As we move forward with this effort, we are seeing clear, objective evidence of the effectiveness, efficiency, and quality of the improvements we’re delivering to CA—and to our customers.

Question: Chris, how will this change CA’s software?

Answer: Well, as I mentioned, we are committed to best in class customer experience which is derived from the highest quality in terms of functionality, usability, accessibility, performance, interoperability, and security, across our entire suite of applications. We are making bold commitments to our customers and holding ourselves responsible. We are implementing a comprehensive set of testing and quality metrics to measure ourselves against these high standards.

As we measure how well we are delivering on that commitment, we continue to find opportunities to deliver even better on that commitment. We are very focused on measuring our customers experience and quickly responding to resolve their issues. The quality of CA’s software will continuously improve as time goes on.
Question: Do you see this focus on quality accelerating delivery of software or slowing it down?

Answer: Our quality assurance policy is based on the idea that quality is not about testing out a huge mass of bugs at the very end of each project. That's the least effective and least efficient way to go about quality. We are building quality and assurance into the entire lifecycle. This includes projects that are following traditional lifecycles and those following Agile lifecycles. As we get better at preventing defects, or at least removing them closer in time to the moment of introduction, we expect to see project timelines shorten, because we'll be delivering fewer bugs to the test teams and beta customers at the end of our delivery cycle.

Question: In the opening years of this decade, Microsoft went through a searing experience with the poor quality of their software, particularly in terms of security, that forced them to make dramatic changes in the way they build software. Chris, do you see this focus on quality as a natural evolution in the way CA builds and sells software, or is it revolutionary?

Answer: Given that our products are developed for enterprise customers to manage their critical infrastructure, our customers have always expected a higher level of product quality and reliability. These expectations continue to grow and evolve as many of our mainframe customers are faced with a reduction in the size and experience level of their mainframe workforce. We spend a lot of time listening to our customers. They've told us what they want in terms of quality. Clearly, we must be best in class and we must build this focus into our culture. We are empowering our people to plan, manage, and execute these changes.

Question: So, let's look at this from the customer's point of view. How do you see this initiative benefiting CA's customers in terms of quality? You clearly think it'll be measurable, not just subjective?

Answer: Absolutely measurable, and subjective as well. Subjective, in that people using our software in companies around the world will feel better and better about the quality of our software as this initiative continues. Measurable, not only from higher levels of customer satisfaction surveys, but we are seeing reduced field failures, fewer customer calls, greater participation in our Beta program, and ultimately, more revenue as our existing and new customers select CA products based on the overall value we provide.

Question: How are you going about picking the particular metrics?

Answer: We started by identifying the root causes that were driving customer satisfaction. We learned that product quality was a primary driver, both in terms of the number of issues and the time to resolve those issues. We found that as the Mean-Time-to-Resolution (MTTR) improves, so does customer satisfaction. As such, we are using MTTR metrics to help transform the behavior of our development organization to improve responsiveness to customer issues. Over the past two years, this focus has reduced our average MTTR by over 50%.

We also developed a Balanced Product Quality Scorecard that reports on key quality metrics for each of our products, based on customer support metrics. We have two levels of customer support: Level 1, for initial reporting of issues, and Level 2, for resolution of the defects underlying some of these issues. Our scorecard provides a quick view of Incoming Customer Issues to Level 1, Incoming Customer Defects to Level 2, Defect Backlog in Level 2, and Defect Aging in Level 2. Over the past 2 years, this focus has helped our mainframe products to reduce incoming issues to Level 1 by 21%, incoming defects to Level 2 by 26%, defect backlog by 57%, and defect aging by 55%.

Question: That sounds like a great tool to manage quality from the customers’ perspective. Chris, do you suppose we could show readers an example of that dashboard?

Answer: Yes, we’ve been very pleased with how it’s worked for us, and we’d be happy to share it with Testing Experience readers. [See Figure 1 for example of the dashboard.]

Question: Chris, you are responsible for mainframe products. Why do you think testing and quality is particularly important for those products?

Answer: We are seeing an aging workforce in the mainframe world. Many people who have over 30 years of experience in making these mainframes work properly are retiring. This is happening at time when mainframe usage is growing at a healthy pace. Our customers can’t rely on experience, institutional knowledge, and wizardry to keep these important corporate assets going. They need us—they need CA—to make products that help them use mainframes effectively and efficiently, even with a less-experienced IT team. Our quality initiative is a key part of making sure that our mainframe customers have the tools they need as this mainframe brain drain continues over the next few decades.

We are the leading independent software vendor in the mainframe space. This brings us the responsibility to continue driving growth and innovation in mainframe applications. We need to enable the next generation of mainframe developers to scale, advance, automate and dramatically improve the customer experience of mainframe applications. We need our products to take on more of the burden from our customers due to the increasing turnover in their mainframe workforce. We need to remember that at CA, job number one is ensuring a best in class customer experience.