

SPIRENT ITEST CASE STUDY

BLADE NETWORK TECHNOLOGIES REDUCES OVERHEAD AND IMPROVES TIME TO MARKET WITH SPIRENT ITEST

BLADE Network Technologies (BLADE) is a leading provider of high-performance, low-latency, lossless, low-power, and low-cost Ethernet switches, as well as Virtual Machine-aware network virtualization and management solutions for enterprise data centers. Over 8 million BLADE switch ports are deployed at major corporations and government agencies worldwide. By leveraging Spirent iTest® test automation software, BLADE has been able to save \$500,000 in resources and equipment costs, sanity build times, and time to market.

EXECUTIVE SUMMARY

Challenge

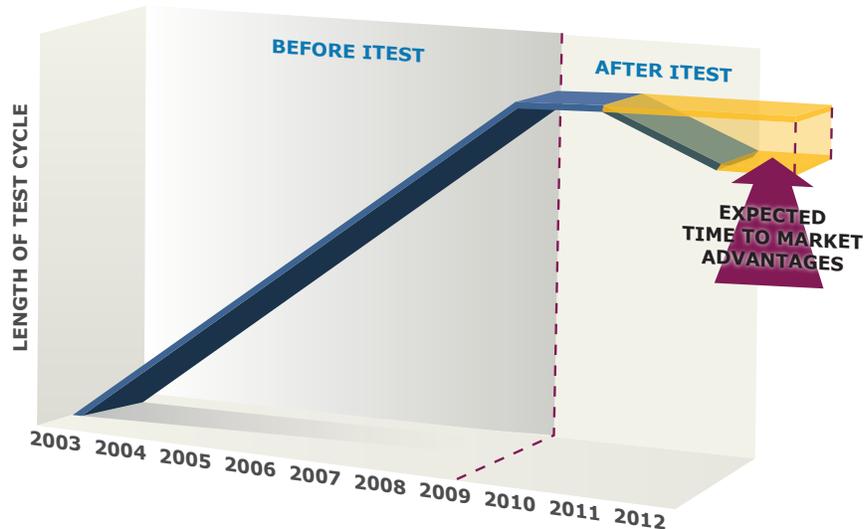
Increase productivity and reduce QA costs and time to market by adopting a more efficient test automation tool

Results With iTest

- Increased revenue opportunities by enabling the right products to be delivered to market on time
- Improved productivity, saving \$500,000 in resources and equipment
- Achieved time-to-market and quality goals without increasing headcount
- Reduced scripting costs by more than 40 percent
- Better utilized existing resources, regardless of skill set
- Reduced time for maintenance releases by 1,000 percent
- Streamlined defect resolution, allowing more time to be spent on quality testing and development

SEEKING GREATER PRODUCTIVITY AND IMPROVING TIME TO MARKET

In 2009, BLADE was focused on developing new product features to meet the growing demand for virtualization-ready networks. In addition, BLADE's portfolio of products increased significantly from its founding as an independent company in 2003. The resulting increased volume and complexity of testing requirements caused BLADE's testing cycle to grow, until it was seven times longer than it was at its founding.



Due to increased volume and complexity of testing requirements, the length of BLADE's test cycle had increased every year. With the introduction of iTest, the length of the test cycle leveled off and is expected to decrease.

To meet its increasing product development and time-to-market goals, BLADE hired new testers and outsourced work offshore. The company, however, was looking to reduce these escalating resource costs.

"The growth rate of QA was becoming faster than development," recalls Clive Surfleet, Senior Vice President of Business Development at BLADE. "Thus, BLADE decided it was time to find an off-the-shelf testing solution that would not only increase the productivity of our existing testing resources, but also enable the company to get more products to market faster."

ENABLING AUTOMATION AT ALL SKILL LEVELS

BLADE was out-growing its internally developed automation system, which followed a proven testing workflow yet was inefficient and a drain on resources. Test engineers wrote the test plan and conducted the manual test, and the automation team then developed the automated test suite using a scripting language. As a last step, another team performed regression. Because the teams lacked tools to create documentation, BLADE also turned to iTest to generate documentation in order to make it easier to repeat tests accurately. In addition, BLADE wanted a system that did not require special engineering skills. “We needed a tool that would enable engineers of all skill levels to contribute to the automation process—and help us more cost-effectively bring a quality product to market,” explains Tim Chao, Vice President of Software Engineering at BLADE. “Based on our evaluation, iTest technology proved to be powerful yet very easy to use, so that we could better meet our productivity objectives with our current talent pool.”

IMPROVING EFFICIENCY AND PRODUCTIVITY

After only one year of using iTest, BLADE has created approximately 3,700 test cases spanning 13 different products, and 65 percent of the test plan is now automated. BLADE’s test engineers use iTest to create and share portable automation assets, including tests, reports, and documentation. By leveraging each other’s assets, test engineers can effectively collaborate and automate processes throughout the quality workflow across all product lines. This has helped drive automation while improving efficiency and maximizing productivity. By introducing automation earlier in the quality workflow, BLADE’s test engineers have been able to complete more tasks in parallel with existing resources.

“With iTest, we can avoid the inefficiency of having one engineer create a test and give it to the automation team to make into an automation test suite,” says Chao. “The automation team can simply leverage the original test plan, moving up automation earlier in the process and saving us a lot of time and cycles.”

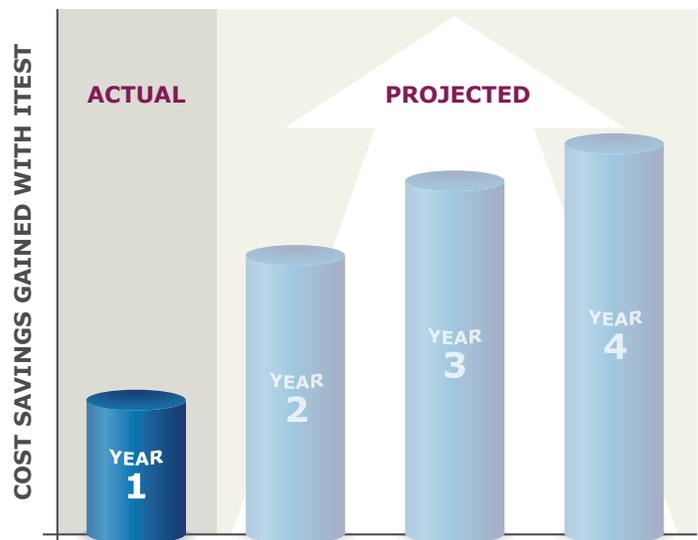
iTest has also provided BLADE with substantial time savings at other key stages of the quality workflow, including regression testing and maintenance release cycles. Furthermore, developers and test engineers have streamlined

communication and reduced time to resolution by sharing automation assets. Developers can easily reproduce bugs at their desktops, saving both groups time and allowing them to focus on further quality testing and development.

IMPROVING TIME TO MARKET AND REDUCING OVERHEAD

iTest has significantly improved BLADE’s product delivery and quality process, enabling BLADE to modify its delivery approach for each product to effectively balance product volume, time to market, quality, and resources. As a result, BLADE has been able to contain a number of overhead costs associated with the testing process while improving time to market.

“The performance gains from iTest have allowed us to save about \$500,000 in resources and equipment,” remarks Khurram Khani, Director of Software Quality Assurance at BLADE. “iTest has enabled us to leverage existing resources more efficiently so that we can meet our quality objectives while adhering to a more aggressive schedule.”



During the first year using iTest, BLADE saved \$500,000 in resource and equipment costs. This savings is expected to grow over time.

MAXIMIZING EXISTING RESOURCES

iTest has allowed BLADE to better utilize its existing resources, maximizing a variety of skill sets while driving further automation. iTest automatically generates documentation after

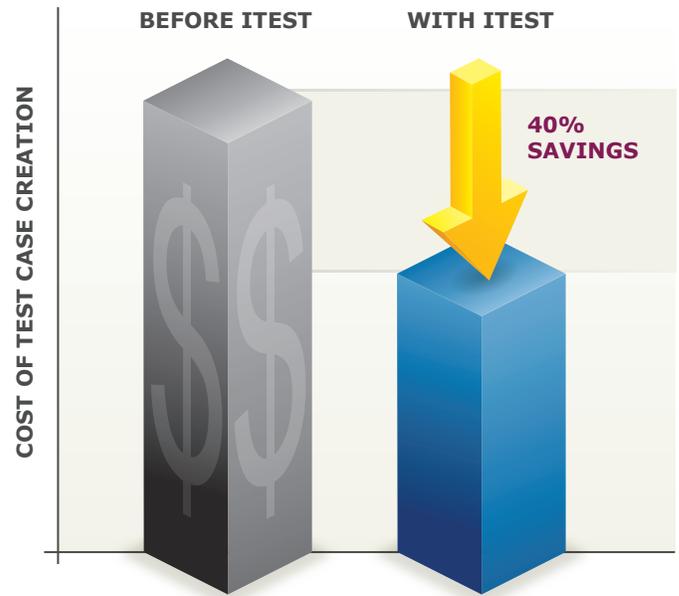
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“Getting to market with the right product at the right time provides us with better revenue opportunities. This ability to capture business opportunity is by far and away the biggest benefit that Spirent has delivered to Blade.”

—Tim Chao, Vice President of Software Engineering,
BLADE Network Technologies

every test, providing detailed test information in an easy-to-understand format. All test engineers, regardless of skill level, can use this documentation to quickly and accurately repeat a test. In addition, test engineers do not have to be scripting experts to create a test with iTest. As a result, BLADE no longer has to rely on Tcl—or test engineers with Tcl expertise—to create scripts, thus achieving savings of up to 40 percent per test creation. Testers with more advanced skills also no longer need to spend valuable time maintaining tests. iTest tests are significantly easier to maintain than Tcl scripts, so expert testers are free to focus on ad hoc testing, leading to more satisfied employees and higher product quality.

“By deploying iTest, we have been able to raise the value provided by engineers in the test function, reduce overhead, better leverage existing resources, and improve time to market,” concludes Surfleet.



BLADE achieved a 40% savings in test creation with iTest.

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