

REAL WORLD CASE 3

Bio-ERA and Burlington Northern Santa Fe: The Business Case for Global Collaborative Development

When Stephen Aldridge, CEO of the Bio Economic Research Association (www.bioera.net), also known as Bio-ERA, needed help earlier this year developing a Web portal and its associated applications, he called on Assembla, a small software development company in Needham, Massachusetts. From Assembla, the call went out and a geographically dispersed team of developers came together almost immediately. Andy Singleton, Assembla founder, brought together and managed developers in Ekaterinburg, Russia, who worked with Bio-ERA employees in the United States. The far-flung team collaborated by using the open-source portal development software XOOB (extensible Object Oriented Portal) in conjunction with the project management software tool PowerSteering, developing and launching the portal within weeks.

The project amounted to a radically different way to build software and foreshadows the future of a distributed global collaborative model of software development. Low-cost application development talent is located around the world, and with Internet-based, open-source tools available for collaborative application development, teams can now come together quickly to get a job done. Thus, Burlington Northern Santa Fe (www.bnsf.com), in Fort Worth, Texas, collaborates with offshore outsourcer Infosys Technologies in Bangalore, India. And Sun Microsystems, in Sunnyvale, California, is nurturing an open-source development project for its StarOffice suite with the help of Web-based collaborative development software from CollabNet, Inc.

For IT executives seeking to avoid the complex tasks of software development, the ability to form just-in-time teams using outsourced talent allows them to concentrate on running their core businesses. “As we generate more and more people educated in writing code, and as we see the practicality of using such software-capable people from around the world because of the capability of Internet-based collaborative networks, it seems apparent that the use of distributed application development is inevitable,” says Christopher Myer, a former director at Cap Gemini Ernst & Young.

Bio-ERA. At Bio-ERA, a new Cambridge, Massachusetts-based life sciences research company, Aldridge says he needed a third party like Assembla that could locate, organize, and manage talent while his portal plans took shape. “You have to have an IT manager, someone who understands software development and has experience managing a distributed team and a platform,” the CEO says. With the worldwide increase in the number of software developers and the establishment of outsourcing organizations “there’s been a sea of change in the availability of development talent,” Aldridge says. The team of Russian and Bio-ERA developers was assembled within days. “I had a business need. I needed to get a website portal built that had a certain number of features,” Aldridge says. “I wanted it fast and cheap.”

“We needed someone like Andy Singleton of Assembla, who was good at taking a business request and parsing it

out into a software-development project and making it a work-managed project using a tool like PowerSteering, which has collaborative features and project management features,” Aldridge adds. “And the guys in Russia and Andy, and me and my guys can go to it. And if we have an issue we can raise it.”

Burlington Northern Santa Fe. Distributed application development—a component of the dynamic-development model—can also offer significant benefits to large enterprises, many of which look to offshore outsourcers to handle a major share of their development work. For example, at Burlington Northern Santa Fe, CIO Jeff Campbell says the railroad company began contracting in 2001 with offshore outsourcer Infosys Technologies. Infosys’s work for BNSF includes as much as 40 percent of BNSF’s application development initiatives and other computing needs. But as much as 25 percent of the Infosys workload is actually done state-side. The talent is in place for any ad-hoc jobs that may arise.

With just-in-time assembly of teams, Campbell turned to Infosys for help setting up an important IT management project soon after he was promoted from chief IT sourcing officer to CIO last October. “My pager was going off 24 hours a day with IT work requests. I had to worry about on-time delivery of services, budget, and management skills,” Campbell says. “I decided I needed a Web-based balanced scorecard tool. I had a niche need and I was able to go out to an offshore developer and quickly start on the project.”

Campbell met with his BNSF developers and with the Infosys developers from India to create a new distributed IT management component within weeks. “We invited the Infosys project leader to come in and we mapped out the features we needed, which included 14 performance metrics. We created an executive dashboard, or pulse point, for a CIO. I can bring it up and see all the metrics of how my IT organization is doing and drill down to find out how the organization is performing.”

Case Study Questions

1. How is the open-source model affecting the development of application software for business?
2. What are the business benefits of the global or collaborative approach to software development? Use the companies in this case as examples.
3. What are several potential challenges or limitations that might arise when using a global collaborative approach to software development? How can companies address such challenges?

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