IBM

AIRS finds hidden job candidates with IBM middleware for Linux.

Overview

■ **Application**

SearchStation, an online recruitment search tool that finds job candidates in public sources on the Internet

■ **Business Benefits**

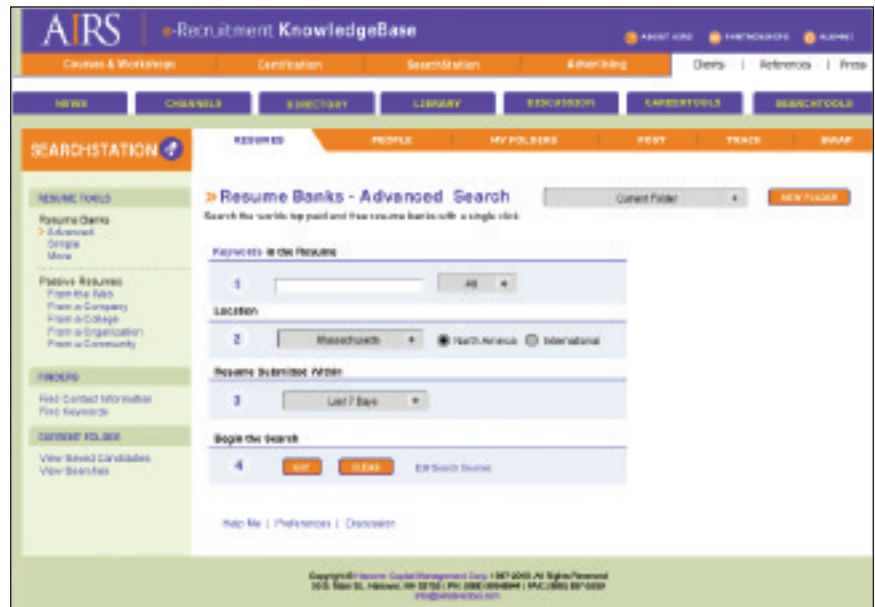For AIRS: projected 50% to 100% sales growth in 1 year; For customers: at least 50% savings in search time For Lynx: growing corporate demand for its Linux® applications

■ **Software**

IBM WebSphere® Application Server; IBM DB2® Universal Database™ for Linux; IBM VisualAge® for Java™

■ **Business Partner**

Lynx Systems, Inc.

AIRS realized that it needed a more scalable and modular version of its recruitment search tool and turned to the Linux platform running IBM WebSphere Application Server and IBM DB2 Universal Database.

Without running a single employment ad, companies today can mount global searches and quickly find candidates with exactly the qualifications they need to fill their job vacancies. The new generation of Web-based recruitment tools, such as resume banks and search engines, use the efficiencies of e-business to access large pools of candidates across state—and even national—borders. But running a separate search on every job bulletin board and search index on the Internet still takes vast amounts of time, making this method impractical for recruiters, were it not for AIRS.

"Support, performance, scalability, reliability and cost are all critical factors that make IBM products on Linux ideal for a company like AIRS. With the help of IBM, Lynx and Linux, we can anticipate dramatic successes with our new product."

– Michael Gray, Director of AIRS Tools, AIRS

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Based in White River Junction, Vermont, AIRS (Advanced Internet Recruitment Strategies) has capitalized on the growth of Web-based recruitment by undertaking to train companies in the new methods and offer them tools to make searching easy, fast and successful. In addition to seminars on candidate-hunting techniques, AIRS provides companies and recruitment agencies with SearchStation, a set of targeted search tools that combs the Internet for resumes of qualified individuals and retrieves this information from public data sources, wherever they are.

The first release of the AIRS application was based on CGI and Perl code and used open-source software such as PHP and Apache Server running on Linux. "We liked the stability, reliability and, of course, lower costs of Linux," says Jay Undercoffler,

SearchStation performs consolidated searches for job candidates, making it easier for recruiters to find the ideal candidate.

lead developer for AIRS. "But given that our business had expanded exponentially since we brought SearchStation to market, we needed a more robust and scalable solution that would run on Linux and come with reliable support. We also wanted an easy-to-maintain, complete solution with a low total cost of ownership."

Seeking to develop the Java expertise of its in-house staff, AIRS put its own qualifications to the test and probed the Internet for a local firm that could help. The search led to IBM Business Partner Lynx Systems, Inc., a Burlington, Vermont-based provider of custom e-business applications and integration services.

In consultation with Lynx, AIRS chose an IBM infrastructure for the next generation of SearchStation, based on IBM's ability to provide outstanding support, competitive pricing and a total solution. "IBM brings to the table a complete suite of products for serving up Web applications that run on Linux," comments Paul Dicovitsky, software developer for Lynx. "And to back them up, IBM has a stellar service organization."

"IBM's commitment to the Linux platform gives companies the reassurance they need to adopt it for enterprise e-business applications."

– Andrew Dombek, President, Lynx

AIRS's new search tool will be powered by IBM WebSphere Application Server, Advanced Edition and IBM DB2 Universal Database for Linux. Lynx used IBM VisualAge for Java to develop the Java servlets and Enterprise JavaBeans™ (EJB™) that provide the business functionality of the site. The components run on Red Hat Linux.

The re-architected SearchStation is about to go into production, along with customized versions that AIRS is developing for OEM business partners serving Fortune 500 firms. Since AIRS' new partners reach thousands of recruiters in top-tier companies, the OEM version of SearchStation, which AIRS will sell from its own Web site, will expand its market by at least a factor of ten. Using EJBs, which isolate the business logic into granular, reusable components, AIRS and Lynx are able to specify search targets with greater exactitude and keep them up to date as sources change and move around on the Internet. The faster, more accurate search tool will save users up to 50 percent in search time. As a result, AIRS expects sales growth to soar from 50 percent to 100 percent in the first year.

Committed to the Linux platform, AIRS sought a Web integrator that could re-architect SearchStation in re-usable, object-oriented Java technology; the company chose IBM Business Partner Lynx Systems.

"Support, performance, scalability, reliability and cost are all critical factors that make IBM products on Linux ideal for a company like AIRS," says Michael Gray, director of AIRS tools. "With the help of IBM, Lynx and Linux, we can anticipate dramatic successes with our new product."

Thousands of resumes in seconds
Using SearchStation, a recruiter seeking CORBA and Java programmers simply enters these keywords into a search form, specifying a geographical area to search and what types of sources are to be searched (for instance, resume banks only). The command goes to a Java servlet, which processes these and other parameters given on the search form and queues up the searches.

For each search source, the engine invokes an instance of an EJB, which executes the search, retrieves results and sends that data to another EJB. This second EJB aggregates the data, removes duplications and stores it in DB2 Universal Database. In mere seconds, the user receives hundreds or thousands of resumes that conform to the search criteria.

Tightly woven Java technology architecture

SearchStation is now supported by an n-tier architecture. Java servlets on the presentation tier queue requests from the Web browsers and pass them to EJBs on the business logic tier. Other EJBs perform the search on the Internet and store the results in DB2 on the database tier. JavaServer Pages™ (JSP™) on the presentation tier format the results in HTML and display them on a search results page. Separate instances of IBM WebSphere Application Server on the presentation and business logic layers provide the runtime environments for these objects.

The solution also leverages IBM HTTP Server, which is based on the open-source Apache Server. Says Dicovitsky, "Like many Linux shops, AIRS was comfortable using Apache, so they appreciated having an Apache-based Web server running on Linux."

Lynx switches to IBM to capture growing market

Lynx made a strategic decision over a year ago to switch from developing e-business solutions with Microsoft products to using IBM software offerings for Linux, including WebSphere Application Server and DB2 Universal Database. According to Andrew Dombek, president of Lynx, the company needed to respond to market demands for Java development and robust, Linux open-source software. "We're definitely seeing the major corporations getting into the Linux space," he says. "IBM's commitment to the Linux platform gives companies the reassurance they need to adopt it for enterprise e-business applications. That's why we decided to take advantage of IBM's support for Java technology on Linux."

In AIRS' case, the combination of IBM and Linux has created a promising new technology, which can be delivered and used efficiently from the Internet. Says Undercoffler, "IBM middleware for Linux joins the reliability and cost-effectiveness of Linux with the flexibility of Java technology. With this powerful combination, we've been able to create a very robust search tool that will continue to revolutionize the way companies search for new employees."

For more information

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G325-1890-00