

In June of 1998, IBM shook up the software industry when we announced that we would integrate the Apache HTTP server into our products and would collaborate with Apache developers to offer future upgrades. The Apache announcement signaled an important strategic shift at IBM. It showed that IBM recognized the value of open-source software (OSS) and that we were confident we could build products and business models to leverage the advantages of open-source technology.

IBM stunned the marketplace again in 2000 when then Chairman Lou Gerstner announced a \$1 billion investment in Linux. This made us the leading commercial backer of the open-source software movement and gave the movement much needed credibility with large enterprises. IBM's contribution to the industry was perhaps even greater than the \$1 billion suggests. With it, hundreds of IBM programmers joined a wide range of OSS development activities, and in time, many of them became respected, valued peers in the open-source community. It is arguable that our support has been pivotal in accelerating the adoption of open-source software by businesses and governments worldwide.

Working with the OSS model has meant we have had to adapt our processes and methodologies. OSS uses a nontraditional approach to both licensing and development processes. As a result, there are legal and business implications in creating and distributing software in this manner. It is important for us to leverage OSS carefully and strike the right balance between our open-source efforts and traditional development and licensing practices. What is very clear, however, is that embracing OSS-community development processes allows us to tap into the expertise and co-funding of the greater developer community, thereby allowing us to build more creative, innovative, and cost-effective products and solutions for our customers.

IBM is now one of the major sources of OSS creativity and funding. Our investment and participation in major open-source projects such as Linux, Apache, Eclipse, and the Globus Alliance, and our donation of Cloudscape, Eclipse, and speech recognition technology to the open-source community are just a few examples.

In addition, IBM recently pledged open access to 500 of its software patents for the open-source community, thus creating a "patent commons" to further assist in the creation and distribution of OSS. As part of this announcement, IBM called on other companies holding valuable patents to follow its lead. Our efforts to use intellectual property to stimulate innovation will benefit IBM, our partners and customers, as well as the open-source community of which we are a critical part.

OSS has many tangible benefits. It allows partners and customers to build highly tailored software solutions; provides ready access to high-quality, open-source implementations of open standards; speeds industry adoption of those standards; and, perhaps most importantly, provides a global laboratory for rapid innovation. IBM benefits by introducing our technology into businesses that might not otherwise acquire it, thus increasing our potential business opportunity and relevance in the marketplace.

And if that were not enough, there is another advantage. It gives us the opportunity to build relationships across a broad spectrum of highly skilled and well-respected developers. Cooperating with, and even taking a leadership role in the OSS community, greatly enhances our understanding of market trends and software requirements. Instead of being reactive, we are being proactive—anticipating customer needs and expectations. Consequently, software will become a business enabler that creates competitive advantage for

our customers, rather than a choke point that slows down their ability to respond aggressively and effectively to threats and opportunities.

This issue of the *IBM Systems Journal* represents a milestone for IBM. It presents some of the work we have done to date and some of the challenges we face in coming to terms with the impact that OSS will have on our business. IBM has taken a leadership role in what was a nascent environment just a few short years ago. That alone speaks to significant changes in our own culture. Rather than a stiff, structured company that cannot respond and adapt, we are agile and nimble.

IBM will continue to create high-quality commercial software on which our customers have come to depend. But proprietary software will not be our only business model. The success and growth of the open-source software movement will continue to play an important part in IBM's long-term technical and business strategies.

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