

— IBM CORPORATE RESPONSIBILITY REPORT —

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## FROM THE CHAIRMAN

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*When IBMers think about leadership, they mean more than increasing our market position or growing shareholder value — as important as those are. For us, leadership must occur on multiple fronts, and it must spring from innovation.*

I'm not just talking about technology. The innovation we seek is broader than that—the joining of invention with insight to produce important new value.

This is not new ground for IBM. From our earliest days, we have helped pioneer global commerce, have led corporations and even governments to provide equal opportunity for all, and have applied the discoveries of science to advance business, healthcare and education. As I said, leadership for us means *all* the dimensions in which a business can lead. So, for example, since 1994 we've required that a majority of our board be independent of the company. For each of the last 12 years, we've earned more U.S. patents than any other company. And as early as 1935, our policy was for men and women to receive equal pay for the same kinds of work. To IBMers, these facts are not unrelated. They are evidence of a continuum of innovation.

You cannot achieve this kind of leadership all by yourself. It requires engagement with a broad spectrum of enterprises and people—openly, collaboratively and with a deep sense of responsibility. It requires addressing the concerns of the wider society in which competitive markets operate and technological discoveries occur. And, importantly, you can only sustain such broad-based leadership by continually reshaping your own enterprise to be a force for positive change.

Today, many businesses are newly discovering the importance of ethics, corporate responsibility and the multiple ways in which they are part of this wider ecosystem. In some cases, perhaps, it is a reaction to excesses of the prior decade. But for us at IBM, this is much more than a matter of legal compliance or even “giving back to the community.” It is and has always been integral to how we conceive of ourselves as a business.

As IBM's CEO, I'm glad to see the recent focus on corporate accountability and trust. From a purely competitive perspective, it plays to our company's strengths—whether we're after new client contracts, new talent and expertise, or new markets. A business environment that raises the bar for companies in this way is one in which we are very much at home.

However, I also welcome a broader concept of corporate responsibility for more personal reasons. I have spent my entire working life in this company. I first learned about business when I joined IBM, and so I naturally developed an IBMer's point of view on what a corporation can and should be. That's how I learned that you can deliver increased shareholder value and consistently high returns on invested capital *as the result of* developing deep relationships with clients, employees, suppliers and entire communities.

You can read more about that view and our practices on our corporate responsibility Web site [[www.ibm.com/ibm/responsibility](http://www.ibm.com/ibm/responsibility)]. They're part of how we describe our work at IBM and among the things for which we want to be known. We think managing these responsibilities effectively is one of the marks of true leadership. And—as you will see—it is certainly a hallmark of our company.



Samuel J. Palmisano  
*Chairman, President and Chief Executive Officer*

## OUR VIEWS

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*An ongoing series of essays and articles* written by IBMers that offer a variety of our perspectives on the responsibilities of business, technology, government and society.

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### Corporate Culture is the Key to Unlocking Innovation and Growth

*Technology is important—but people must come first*

BY LINDA SANFORD

Working in a leading technology company, I have come to understand the importance of innovation: it can transform business, create new markets and drive economic growth. In today's uncertain economic climate, however, innovation has become less of a priority among many business leaders, with corporations generally reducing their focus on research and development.

In the right form, however, innovation can still be a tremendous driver of shareholder value. First, though, we must be careful to understand the distinction between invention and innovation. Invention is the creation of something new — “the next big thing,” if you will. Innovation is the application of invention to business or societal needs.

From that point of view, the reinvigoration of innovation is a critical issue not just to business leaders, but to everyone. Coming from IBM, you might expect me to tout technology as the answer, but I contend that the primary way to drive new innovation is by investing in people first.

The companies that can create a culture of innovation are the companies that will succeed in the next era of business,

create sustained brand equity and drive greater shareholder value. That culture is defined by its ability to anticipate customer needs and market dynamics, then quickly respond with flexible business processes and technology to meet those challenges.

Investing in people and creating a culture of innovation might seem counter-intuitive as we are slowly emerging from five years of utilizing cost containment as a primary financial management strategy. Every executive I talk with is interested in how to sustain productivity gains going forward—and they realize cost cutting can now only go so far. They're not interested in buying hot technology just because it's the newest thing. They're looking for top-line growth.

This was supported in the findings of The Global CEO Study 2004, in which IBM surveyed 456 CEOs worldwide to identify their business agendas for the next two to three years. In the study, four out of five CEOs pointed to revenue growth—not cost containment—as their top priority for boosting financial performance.

The CEOs said the best way to drive new growth is through increasingly differentiated products and services — but they also said that this type of innovation will be impossible without a renewed focus on people, including retention and re-education to keep vital knowledge within the organization and to develop new skills to compete in a more demanding and fast-changing global economy.

On this front, companies would do well to emphasize a single behavior that's key: collaboration. At large multinational enterprises — and I'd include IBM in this category — collaboration has the most potential to drive enormous competitive advantage but is universally underutilized. The winning recipe for improving collaboration includes a few essential ingredients.

IT tools are certainly one. There's a tremendous amount of innovative software applications for collaboration flooding the market. E-meetings, team rooms, instant messaging and other new technologies make it much easier to collaborate within a large organization or outside the enterprise with trading partners and customers.

Having the right tools is important, but not enough to induce collaboration. You have to get people to think differently. To that end, corporate leaders must promote and reward collaborative behavior on an ongoing basis.

Senior management needs to model the type of collaborative behavior they're trying to encourage. Performance reviews, bonus and incentive plans must be aligned with the goals of creating a collaborative, high-performance culture of innovation. Most importantly, remember that habits of behavior don't change overnight — you have to keep at it.

Enhanced collaboration reaps many benefits. It improves productivity, eliminates inefficiencies and helps solve problems — but it also becomes the engine for innovation. Whether you're talking about product development, customer service, marketing or any other business discipline, you invariably will get a better, more innovative solution through collaboration than through solitary effort.

Increasingly, that collaboration must cross business units, geographic boundaries, different stakeholder groups both inside and outside the corporation and even industry lines — in other words the culture of innovation must be more of an ecosystem where many different partners and stakeholders contribute and thrive.

Think of the potential for innovation in our emerging knowledge-based global economy. Today, the basis of innovation is less focused on things, and more on ideas — ideas that in our networked world can move around the globe with the click of a mouse.

The potential exists to accelerate the engine of innovation across many sectors of the economy, but it can only happen if we create corporate cultures where people are empowered to collaborate in new ways, and where that collaboration is seen not just as a cost of doing business, but as a driver of shareholder — and stakeholder — value.

*Linda Sanford is senior vice president, Enterprise On Demand Transformation & Information Technology, at IBM. In this role, she is responsible for turning IBM into the industry's premier on demand business by transforming IBM's core business processes, creating an IT infrastructure across IBM to support those processes, and helping to create a culture that recognizes the value that on demand leadership can bring to IBM.*

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## The New Discipline of Services Science

*It's a melding of technology with an understanding of business processes and organization — and it's crucial to the economy's next wave*

BY PAUL HORN

If the film *The Graduate* were remade today, the word of career advice whispered in Dustin Hoffman's ear might well be “services” instead of “plastics.”

Services have come to represent more than 75 percent of the U.S. economy, and the field is growing rapidly. In the information-technology business, services have become even more important. Without a doubt, the information-services sector is a great place for high-paying jobs.

But there's a shortage of skills where they're needed most — at the intersection of business and IT. As companies build more efficient IT systems, streamline operations, and embrace the Internet through wholesale changes in business processes, a huge opportunity exists. Nonetheless, little or no focused efforts are preparing people for this new environment or to even to thoroughly understand it.

### ***Spotting weak points***

The IT-services sector is in dire need of people who are talented in the application of technologies to help businesses, governments, and other organizations improve what they do now — plus tap into totally new areas. The complex issues surrounding the transformation of businesses at such a fundamental level require the simultaneous development of both business methods and the technology that supports those methods. This is the seedbed for a new discipline that industry and academia are coming to call “services science.”

Services science would merge technology with an understanding of business processes and organization, a combination of recognizing a company's pain points and the tools that can be applied to correct them. To thrive in this environment, an IT-services expert will need to understand how that capability can be delivered in an efficient and profitable way, how the services should be designed, and how to measure their effectiveness.

This new academic discipline would bring together ongoing work in the more established fields of computer science, operations research, industrial engineering, management sciences, and social and legal sciences, in order to develop the skills required in a services-led economy.

### ***No going solo***

There's more to this than meets the eye. Not only are new curriculums required in our universities but more research and development focus has to be applied to ensure that the necessary processes, technologies, and techniques are developed. Evidence will have to be gathered to demonstrate effectiveness, as is done in any science.

The task is large and the implications far-reaching, so this kind of R&D will have to be based on a closer collaboration among industry, academia and government. Joint research projects are already under way at University of California at Berkeley, Stanford University, and the Georgia Institute of Technology, to name just a few.

It will be a major change. Today, IT-services training is mostly accomplished through individual companies' on-the-job programs. This may have been adequate before, but it's not any longer, especially with increasing globalization and competition from cheaper labor markets made possible through technologies like the Internet. Like everything else, labor is governed by the rules of supply and demand. In the job market, this translates to higher salaries for those who have in-demand skills.

### ***Embracing innovation***

America has moved from an agrarian-based to a manufacturing-based to an information-based economy. We're now entering a new phase where value will be found in what we do with information to improve business, government and people's lives. Call it an innovation-based economy, where profits and jobs will go to those who have the skills to capitalize on the explosion of new opportunities at the intersection of business and technology.

The world rewards those who stay ahead of the curve. The creation of an academic discipline and the commitment of R&D investment to support this kind of services environment are important means of doing just that. By collaborating with universities and encouraging a cross-disciplinary approach to services science, corporations and research organizations can play a large part in developing the skills of the 21st century workforce.

*Dr. Paul Horn is senior vice president and director of IBM Research, overseeing the world's largest and most prolific research organization dedicated to information technology, with 3,000 researchers at eight labs worldwide.*

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# Creating a New Frontier of Innovation

*Innovation is today truly global. But is it also sustainable?*

BY NICHOLAS M. DONOFRIO

Investment in frontier research has always been the bedrock of innovation. Researchers and other technical leaders have a long and proud history of investigating uncharted terrain, of exploring areas that at first seemed daunting—even impossible—but that ultimately panned out, and opened up whole new vistas of science, value, wealth and societal progress.

Throughout history, extraordinary periods of achievement have been sparked by a single invention. No one dreamed in the 1940s, for example, that the esoteric field of quantum mechanics would spawn the semiconductor and information technology revolutions. Engineers working on time-sharing techniques probably never anticipated the World Wide Web and e-commerce. Scientists researching atomic motion likely did not anticipate or predict reconfigurable chips or global positioning devices.

It is rarely the invention itself that creates the revolution—it is the people who figured out how to apply it and, better yet, apply it in multiple and diverse ways. That's what innovation is all about—taking a great thing and making it pervasive, applying an invention in a way that literally transforms institutions, enterprises or society as a whole. From innovation, entirely new industries and markets are born—and important changes in behavior will occur.

The very nature of innovation is changing rapidly. Even within well-established centers of innovation, creativity is becoming much more collective and much more open. Many more people are now able to play. And markets being what they are, innovations that occur in the marketplace generate further innovations. In the process, they give rise to new industries, they spur productivity and economic growth, fuel wealth-creation, create higher-paying jobs, and raise the standard of living for everyone.

The mature economies of the world today are facing new realities that significantly challenge their capability to create and deploy innovation for prosperity and growth. We need to understand the roadblocks, and we need to recognize both the challenges and opportunities for creating a new innovation paradigm—one that enables our global society to grow our levels of prosperity while addressing

society's most important needs. We simply cannot assume that established public policies are adequate for the new challenges that lie ahead.

The public policies that today compromise our ability to generate innovation are related to education, training, research and development, fiscal and monetary policy, intellectual property, taxation, standardization and market access. Future prosperity lies in placing innovation at the heart of those policy areas. For example, how can we optimize for innovation by protecting the rewards of intellectual property while at the same time encouraging the proliferation of open standards?

We need to do many things here. One of them is to address the growing tensions between universities and industry around the transfer of technologies. Universities should clarify that the role of technology transfer is the diffusion of knowledge, not the maximization of revenue.

Optimizing for innovation in the 21st century requires a balance between the protection of intellectual property and the encouragement of the open process. Intellectual property rights should not get in the way of shared innovation between business and academia. Both of those constituencies should be working together to define the skills needed by businesses and society, to develop curricula that will produce the kind of talent required, and to stem the ever-declining interest by so many young people in pursuing technical and scientific education.

To create the next generation of innovators, education must be fundamentally transformed and realigned. The value of higher education increases during times of change and transition. And increased innovation activities demand that we fill the world with more adequately-skilled people. This is true whether one speaks of Europe, as it faces the challenges of low population growth and decreasing enrollments in university-level science and technology programs; of the developing world, where droves of skilled young people are directly participating in the international economy for the first time; or in the United States, where the number of degrees granted in technical and scientific fields is on the decline as the population continues to grow.



In addition, regulatory and legal systems must be critically reexamined and optimized to better support innovation, entrepreneurship and flexibility in labor markets, while protecting society. Leaders around the world must ask themselves if they have the right balance among regulation, protection of citizens and the encouragement of entrepreneurship and investment. The responsibility to put this in place must be shared among business, government, academia, citizens and employees. It requires ground-breaking thinking among all entities.

The leading economies of the world are by no means exempt from this need for critical reflection. For example, in the United States publicly funded research has been steadily moving away from the frontiers of knowledge and closer to application and development. Federal research investment has grown conservative — increasingly driven by consensus, precedent and incremental approaches. U.S. federal funding in fundamental research is now at only half of its mid-1960s peak of 2 percent of GDP and — excluding spending on defense, homeland security and space — it is expected to decline in real terms over the next five years. At the same time, a short-term focus has infected business. Corporate R&D dropped nearly \$8 billion in 2002, the largest single year decline since the 1950s.

Clearly, there are some big trends here that are troubling. In 2004 the U.S. Council on Competitiveness, an organization of more than 200 CEOs, university presidents and labor leaders, launched the National Innovation Initiative (NII) to come up with a plan to restart America's innovation engine. The NII Report was released during a December 15, 2004, summit in Washington, D.C.

Among its key recommendations were the development of new incentives and support for business creation, a new intellectual property regime, and a national investment plan tailored to support America's most promising areas for innovation and ensure its research competitiveness in the future.

One important caveat: As the NII team discovered, you don't create game-changing innovation simply by increasing your budget for research and development. You do it by creating an environment where innovation will flourish. And that means understanding the process of innovation — how it happens, where, by whom, and at what pace it happens — all of which are changing today in fundamental ways.

The old, Industrial Age model is in rapid decline. Innovation is no longer the domain primarily of individual inventors, laboring for years in isolation, then bringing out their inventions for the rest of the world to apply. It happens faster now, and diffuses much more rapidly into our everyday lives. It also tends to occur more frequently at the intersection of disciplines and sometimes drives the creation of entirely new ones — like nanobiology, network science and bioinformatics. And it is truly global. On a networked planet, there's nothing to prevent knowledge, discovery and opportunity from flowing to whatever environments are most fertile and hospitable.

Today, innovation is occurring at the intersections between the physical and biological sciences, math and engineering, business and the social sciences. In the IT industry alone, breakthroughs in semiconductors, wireless connectivity and data mining have pervasive application in everything from pharmaceutical and genomic research, to weather forecasting, to electric-utilities management. Without balanced funding, we cannot assure future advances in these other areas of important discovery.

How do we get there? The NII concludes that we must begin a new era of government-business-academic collaboration in the United States. Similar findings would apply to other countries around the world. We need to encourage more students to study science and engineering and help our workforce adapt to change. We need more funding for multi -and interdisciplinary research. We need a rededication of public monies to support novel, high-risk and exploratory research. There must be more public support across all the different fields of science.

The frontier is, by definition, unknown. It would be impossible for pioneers in technology, or any other discipline, who have charted new territory to justify the return on investment for their journeys. But heading out for a place you don't already know, armed with hope and an idea you deeply believe in, is at its heart about courage and about optimism. And I continue to be very optimistic about what the future will hold.

*Nick Donofrio is senior vice president, IBM Technology & Manufacturing. He leads IBM's technology strategy and is a champion for innovation across IBM and its global ecosystem.*

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# Why Regulation Compliance is a Growth Opportunity for Business

*More than just a silver lining: corporate data should become a competitive advantage*

BY BRETT MACINTYRE

Roughly 20 years ago, businesses had an easier time knowing which information to keep on hand for compliance purposes. Important documents were typically stored in clearly labeled files and large boxes, and that was that.

Then, two things started happening that changed everything. First, the volume of data companies produce and store to run their businesses exploded, spurred by such technology advances as the Web and e-mail, which double in volume every year. Second, the rules that govern what companies need to keep and can throw out started changing dramatically—witness the recent Sarbanes-Oxley Act, new rules from the SEC and NASD, privacy requirements based on the Health Insurance Portability and Accountability Act (HIPAA), and increased oversight from federal, state and local agencies.

So, businesses face a virtual alphabet soup of new compliance requirements, and the stakes are higher than ever for executives in charge of meeting these new standards. Nobody wants to be on the evening news for discarding critical information, or—just as bad—be unable to find whatever is needed.

Up until now, records management has been a fairly quiet, even routine part of doing business. The difference today is that records management applies not just to legal and information technology issues, but to management of all the information that flows across the enterprise, along with its relations with customers, suppliers and partners. This information is as vital to meeting compliance needs as it is to running the business effectively.

But most businesses aren't there yet. In fact, 85 percent of business information today is typically in unstructured formats such as e-mail, graphics, audio and video—buried deep inside the organization, where it cannot be managed. To meet today's compliance needs, and run the business more effectively, all this buried treasure needs to be scanned and digitized, stored securely and be readily available for internal and external tracking, which could even include producing original documents.

As daunting as this may be, there is a powerful upside: companies now have an opportunity to improve their business performance as they meet tighter compliance requirements. Fortunately, the technology is available to do this. Up-to-date records management policies and systems can not only help companies comply with complex regulation, but also spur productivity, enhance customer service and boost the return on technology investment.

## *How does a business get started on this kind of transformation?*

- **First**, you need to put in place up-to-date records management policies and systems that capture all the information that companies produce and store—without exception. That means every e-mail, document and instant message, in whatever format is pertinent—text, video, audio and graphics.
- **Second**, as information is created, it is stored with records management in a non-erasable format, which can be validated as genuine. In certain cases, the original document must be held for compliance purposes, but a digital version must also be available on demand to the end-user. Records management must not deprive employees of the information they need to do their jobs, which affects their productivity.
- **Third**, you need to be able to enforce retention periods, based on appropriate compliance rules. Security also needs to be airtight so critical data cannot be tampered with or destroyed.
- **Fourth**, you need to make it easy for regulatory authorities to search and retrieve anything they need quickly from the mountain of data stored inside the enterprise. This is where “data” become “information assets,” enabling you to capitalize on the raw material stored inside the enterprise—no matter where it is or what form it is in. Such a capability has enormous implications for your ability to run your business, as well as meet compliance standards.

Companies also need to pay particular attention to two additional technology issues. Bringing data together across the enterprise is a daunting task, given the complexity and heterogeneity of systems, applications and vendors most companies deal with today. That kind of information technology diversity is not going away—it's getting more pronounced.

For example, enterprise technology today typically encompasses eight different operating systems, none of which work together. Moreover, this doesn't include customer and partner systems and applications, which play an increasingly prominent role in Web-based business processes and transactions.

But this kind of complexity doesn't have to be a fatal roadblock. The way to integrate across and beyond the enterprise is to build on standards-based technology, rather than replacing existing technology assets or putting one's faith in a single proprietary architecture. Standards-

based middleware and content management can help companies integrate and automate their business processes, without starting over again.

Finally, choosing an open, standards-based technology will give you the flexibility and agility to evolve your compliance policies and systems as the regulatory environment changes—and seize the strategic opportunity to improve overall business operations in the process.

*Brett MacIntyre is vice president of enterprise content management solutions for IBM Software Group.*

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For more essays and articles written by IBMers that offer a variety of our perspectives on the responsibilities of business, technology, government and society, please visit [www.ibm.com/ibm/responsibility/views](http://www.ibm.com/ibm/responsibility/views).

## OTHER VOICES

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*An ongoing series of articles and interviews providing the perspectives and opinions of people committed to improving various aspects of corporate responsibility.*

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### Companies Need to Grow Inclusive Cultures Every Day, Every Month and Every Year.

*an interview with*

ILENE H. LANG, Catalyst

#### *Is this a good time for women in business today?*

Yes, it's a very good time for women in business today. During the past 10 years, we've seen increased representation of women in the workplace and more opportunities for them. Today, the U.S. labor force is 46.4 percent women and 50.3 percent in management, professional and related occupations. That's a very high level of achievement for women.

For some of us however, it may seem the pace of change has been slower at the very top of the business. In 1995, corporate officers of Fortune 500 companies was 8.7 percent; today, it's 15.7 percent. Women board directors in 1995 was 9.6 percent; today, it's increased to 13.6 percent. And if you looked at women CEOs in 1995 there was one, and today there are seven. So overall, we've seen tremendous growth and the increase in companies that are committing resources and energy to this mission has been impressive.

In addition, since the overall economy has been strong, women have a lot of power as business leaders and consumers. In 2004, for example, an estimated 47.7 percent of all privately-held businesses in the U.S. were 50 percent or more owned by women. These firms generated \$2.46 trillion in sales and employ 19 million people across the country.

#### *What makes a company a leader for women?*

A company that addresses the needs of women in the workplace is what makes it a great leader. But the real difference between companies that are leaders, and those that are middle of the road, is whether diversity is a business imperative. The best examples of leaders are our past Catalyst Award winners.

Each year we give the award for innovative initiatives to retain and advance women to two or three companies that meet a number of requirements, including being tied into the company's business strategy. This year winner's are Georgia-Pacific Corporation and Sidley Austin Brown & Wood LLP. Last year, it was General Electric Company; Harley-Davidson, Inc.; and Shell Oil Company U.S. IBM, a three-time winner, won in 2000, along with the Charles Schwab Corporation and the Northern Trust Company.

#### *What do you think companies can do to ensure micro-inequities—those subtle, sometimes unspoken devaluing messages—are addressed and eliminated from the workplace for women?*

The most important thing a company can do to eliminate micro-inequities is to have a culture of inclusion that allows all its talented people to rise to the top. I mean all talent including women of color, the disabled, et cetera—and

not just the traditional male business icon. I am not necessarily talking about a company's formal programs such as its policies, procedures, performance evaluations, and so on. I am talking about the informal programs—the way people interact with each other and the company's values that reflect how employees behave toward each other.

That's where women can face micro-inequities—such as more frequent questioning of their credibility and authority; exclusion from informal networks or lunch gatherings; and negative gender-based stereotyping. So, if you, as a woman, don't see any women role models that have made it in your company, you will feel that you probably can't make it there. Companies need to address and eliminate these micro-inequities through inclusive programs with such goals as creating a comfortable environment, expanding opportunities for women, and respecting and including minority groups.

#### *What can women just entering the workforce do to prepare themselves for leadership positions?*

One of the most important things for an early career woman to remember is she's not going to achieve or fail on her own. She is part of a team or part of a workgroup. She needs to help others and others will help her. We especially advise her to have a mentor, and not just one, but two or three mentors. In fact, our survey of senior-level women in the Fortune 1000 said that having a mentor was a key factor in success.

We also learn what senior women, and men, say their key success strategies are. The first strategy—that 97 percent of women and 94 percent of men put at the top of their list—is to consistently exceed performance expectations. The second is to successfully manage others; women should be preparing themselves for management experience in their careers as they grow and develop. This also includes managing resources and programs through influencing others, not just through the direct reporting hierarchy. Third, seek a high visibility assignment such as a stretch assignment where they will be able to show where they are going and how they can achieve excellence performance for their business.

Building strong networks is also extremely valuable at any stage of your career; and pursuing line and global experience is important to get experience with others in a different environment, a different climate and a different culture.

#### *Why should companies focus on developing women?*

We released a five-year study last year on corporate performance and gender diversity which established a connection between women in senior management positions and the financial performance of Fortune 500 corporations. Those companies with the highest percentage of women outperformed on return on equity by 35 percent and total return to shareholders by 34 percent. These results present a solid business case for gender diversity in corporations today.

#### *Can you share the top women's issues today?*

There's a lot of media speculation today about women opting out of fast-paced careers. But we can't find any evidence of this. The fact is some women may be staying home for short durations, but most are coming back sooner rather than later. Our research does show that for women who have been working over the course of their careers are just as ambitious as men, irrespective of whether they have children at home. The glass ceiling, however, still exists. And while we have only seven female CEOs of Fortune 500 companies, there are thousands of women ready, willing and able for the next level assignment in big companies. When will those numbers shift? We actually feel we're seeing some of the shift now.

Another issue we're seeing more and more interest in is flexibility—working in an environment where metrics are about productivity and results rather than face time. Flexibility and flexible work arrangements by the way are just as important to men as women. We're going to see companies measured whether or not the programs or policies they have in place for flexibility are really taking hold as part of the corporate culture and that taking advantage of a flexible work structure will not jeopardize career advancement.

The old story is still the important story with women's issues today such as stereotyping barriers, inhospitable corporate cultures, et cetera. We still need to do a much better job in the workplace as far as opportunities for women, with women seeing the results of their hard work and their dedication, and their consistently exceeding performance.

*Are there unique challenges for multicultural women and women around the world?*

Yes, unfortunately, I believe there is an extra layer of negative stereotyping for women of color. We have a long way to go to combat the double-minority status for Asian, African-American and Latina women. I also think that globalization is a challenge for women around the world. At its very core, globalization is a story about diversity and inclusion. You can't be a successful company, tapping into new markets, respecting different kinds of customers, unless you can be an employer of choice wherever you do business. Globalization is a very important frontier for women for diversity and inclusion strategies. With new generations, we will see more and more chances to bring down the barriers with different ways of working and more opportunity.

*What do you see in the future for women in business?*

Gender equity is a long-term process. We would love it if our mission at Catalyst was completed in the next two years. But we know that will not be the case. We encourage individuals, teams, and companies to stick with us. They have to grow inclusive cultures every day, every month, and every year. And as much as we do have these terrific visions, we still have a lot more to do.

*Ilene H. Lang is the president of Catalyst, the leading research and advisory organization working with more than 300 members from businesses and the professions to build inclusive environments and expand opportunities for women at work.*

*Catalyst is the leading research and advisory organization working with businesses and the professions to build inclusive environments and expand opportunities for women at work. As an independent, nonprofit membership organization, Catalyst uses a solutions-oriented approach that has earned the confidence of business leaders around the world. In addition, the organization honors exemplary business initiatives that promote women's leadership with its annual Catalyst Award.*

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## Diversity as Strategy

*an interview with*

DAVID THOMAS, Harvard Business School

**In an article in the September 2004 issue of *Harvard Business Review*, Professor David Thomas examines how IBM made diversity a cornerstone strategy. In this interview, he discusses his findings, how IBM's strategy compares to others in the marketplace, and the future of diversity in workplaces and the marketplace.**

*Why did you decide to look at IBM's diversity strategy?*

My interest began when I started seeing IBM people of color and women in the press who were listed as highly influential executives or people in the technology community. Then, I had a conversation with Al Zollar, who was in the Boston area when he was president of Lotus, and he invited me down to present to the Black Executive Forum. It became clear to me that something was happening inside of IBM that seemed to be much more sustained and profound than at many other companies—that IBM's diversity initiatives had this orientation toward the marketplace and toward inclusiveness of all groups of people within IBM.

You always hear the comment that diversity is paid attention to seriously only during the best of times. And here was IBM, an organization that paid attention to diversity as a business driver at the same time they were moving themselves into the future. Those were the pieces that got me knocking on IBM's door.

*What was significant about your findings?*

First, the extent in which the senior executive group, the WMC [IBM's Worldwide Management Council], starting with Sam Palmisano and many of his direct reports, were connected to this diversity initiative as task force leaders or executive sponsors. I interviewed 50 people, and half of that group were people on the WMC who had been involved from the beginning. I was struck by how they all could talk about being personally connected to this effort, what it meant, and how it changed the corporation. I've been interviewing people for 28 years, so I know how to set up questions and, if you only have a briefing book, being shallow on the subject would reveal itself.



My other key findings include the extent to which “diversity as the bridge between the workplace and the marketplace,” is taken seriously by IBM in ways where you could actually see the synergies being created. By addressing internal diversity at IBM, you increased your capacity to respond to the diversity in your customer base and your labor pool. So even if you look at the initiatives as philanthropic, the senior executives I interviewed were able to talk about things like EXITE camps, education recruiting and the work to close the digital divide for people and communities of color, and could link that to where IBM’s employees and customers are going to come from.

The total design of IBM’s approach to diversity challenged a basic company cultural premise that differences were supposed to be suppressed as opposed to magnified. Many people talked about the creation of the task forces and how they seemed to counter IBM’s culture. But people saw this as a signal that there was a real culture change occurring within the corporation.

#### *How does IBM’s strategy compare to other diversity strategies in the marketplace?*

The main comparison is that IBM’s diversity strategy is much more comprehensive and much more congruent with its business strategy. By that I mean what Lou Gerstner stressed when he came to IBM — that IBM’s culture should become more market- and customer-focused. And if you think about the way even the task forces were put together, the questions are about the workplace and the marketplace. So there’s a consistency and alignment between the diversity strategy and business imperatives that makes IBM stand out. Unlike other companies, IBM’s diversity strategy is really one that is owned by the line organization, not simply workforce diversity or human resources. So I think this is a strategy that can serve as a model for other companies.

#### *What does the future hold for diversity and the global workforce of the 21st century?*

More and more I’m seeing just two types of companies. Companies that really want to try the path IBM has charted, where they want to go beyond complying with the law, to really thinking about how diversity can be a resource for both individual learning and development, and for business performance and effectiveness. Then there are those companies that believe equal opportunity compliance and the legal model is sufficient, and basically they will sort themselves out in the marketplace — and not make diversity a competitive advantage. It’s also very clear, too, that with globalization, with the movement of people across international and cultural boundaries, that no company is going to escape being diverse, or having to deal with a diverse marketplace. The real question is: how are they going to respond?

If you can make a compelling case that doing certain things in the diversity space directly impacts the return on investment, I think you will get some CEOs who say we’ve got to do that because it’s hurting our bottom line. But some CEOs, such as Sam Palmisano, see diversity as part of a vision for a company they want to build. Other CEOs see diversity in the narrowest of ways.

If you prove to a company that they can do better when the people selling the products speak the language of their customers, then they will hire that type of person. But they don’t think, however, about how those people can contribute more broadly in their organization. By interacting with global markets and cultures that are different, companies will learn things that will make their entire organization better. I personally think that return on investment is compelling, but if that’s all that motivates a leader, it’s not enough. IBM’s diversity strategy is about vision and investment. I think that combination is what will take IBM from good to great.

*David Thomas is a noted authority on mentoring, executive development and the challenges of creating and effectively managing a diverse workforce. He is currently Professor of Organizational Behavior and Human Resource Management at the Harvard Graduate School of Business Administration.*

*Professor Thomas’s article on IBM’s approach to integrating diversity strategy and business strategy appears in the September 2004 issue of Harvard Business Review.*

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# The Future of Work

*an interview with*

THOMAS MALONE, MIT Sloan School of Management

*How do you envision a typical workday of the future?  
Is there a typical workday?*

A typical workday in 2004 is already quite different from one in 1974. The vast majority of professionals I know work over a much wider range of place and time than in the past. Many people today think that telecommuting is one of those things that was predicted, but never really happened. But I think of telecommuting not just as people working from home, but as people working remotely. And this happens all the time today—people work from home, from hotels, from airports, from beaches, et cetera.

In that sense, a typical work day has already gone away. What I hope we will see is the development of some new norms in how people handle the increased freedom. In the past, a great deal of time was controlled by our movements in space. We worked when we were at the office, and we usually didn't work when we were at home. Technology has removed those physical constraints, and now we need to develop a new set of social constructs to help us create better lifestyles based on this flexibility. The difficulty is that since we now have the ability to work from anywhere, at anytime, some people feel we have the obligation to do so. This is not a good thing for us, and there needs to be a new set of social norms to help deal with this.

For example, when I took my very first sabbatical 12 years ago, I told people I was going “away” for a week. In reality, I stayed home, worked in the nearby library all day, and had one of the most productive weeks of the entire year. The point is that I felt I had to say I was physically away to carve out that time for myself, and I felt guilty for doing this. We need better social conventions and we are not there yet.

*What role has innovation played in the “new order of business” that you describe?*

Let me start by dividing innovation into two categories: technical and organizational.

As I am sure you know, technical innovation is playing a huge role in business today. One fundamental aspect of this is that technology reduces the cost of communication among people. In the early days, we talked about computers as electronic brains, placing the emphasis on the intelligence capability of these machines. The name “computer” itself implies calculating. But in a profound sense, the computer has been used, and will continue to be used, not for computing, but for coordinating.

If you think of a stack, with the base level being hardware and the next layer being software, the place where I have focused my attention is on the third layer—not the hardware or the software, but the organizational layer—the processes for coordinating people's work. We have seen decades of groundbreaking innovation in the hardware and software layers, and now we are in the early stages of what people will see as groundbreaking innovation in the organizational layer.

Many of the most important changes, I think, will involve increasing human freedom in business. Here's why: when communication costs fall as dramatically as they are doing now, there comes a time when it is possible for huge numbers of people—even in very large organizations—to have enough information to make decisions for themselves instead of just following orders from someone above them in a hierarchy. And there are a lot of good things that happen when people make decisions for themselves instead of following orders: they are often more highly motivated, creative, and flexible, and they often just plain like it better. These things are not important in all situations in business, but in our increasingly knowledge-based, innovation-driven economy, they are often the keys to success.

In the coming years, as technology continues to lower the cost of communication, we will see an explosion of innovation in the ways that businesses are organizing themselves to take advantage of the benefits of large scale organizations while also reaping the benefits of small ones.



*What are the implications of this new order on individuals? On companies like IBM? On the world?*

Well, it certainly has implications on all of these levels.

Companies need to think about how to make fundamental changes in the ways they organize their business. For example, sometimes the best ways to organize work involve creating systems or ecologies of many different people and companies all participating in the same processes, but not all part of the same corporation.

Managers need to give up the traditional focus on centralized, hierarchical control and move to a more flexible, sometimes decentralized approach to management. We need to move from “command and control” to “coordinate and cultivate.” These are not necessarily opposites of each other—coordinate and cultivate includes both centralized and decentralized ways of organizing.

Societies need to think about what goals we want businesses to serve in the first place. Are we really only interested in a maximum financial return for shareholders? Or do we want corporations to also serve a broader range of human needs?

Individuals will have more freedom in their work and in their lives than in the past. In order to use this freedom wisely, we need to think more deeply than we usually do about what is really important to us in our lives and how we can use our work in business to help us get the right balance of those things.

*What cultural shift has to take place in companies or individuals for the “company of the future” to be accepted and effective?*

The most important cultural shift that needs to take place in business is that we need to move to new ways of thinking about management. Mitch Resnick, my MIT colleague, calls the current state the “centralized mindset”—meaning, we assume that if there is a problem, the solution is to put someone in charge. If something goes wrong, someone was responsible, and if something goes well, the manager did a good job.

When you shift to a more decentralized point of view, you realize that often the most important thing managers can do is to help understand and encourage the desires and capabilities of the people within their organization, rather than force them into a direction they don’t want and for which they are not well suited.

There also needs to be a deeper realization that many things happen in the world in spite of centralized control, not because of it. Managers need to establish standards and incentives and then let other people figure out what needs to be done to achieve those goals. In general, we need to practice the art of cultivating systems where good results emerge, rather than always trying to control things from the top.

*Thomas Malone is a professor at the MIT Sloan School of Management and the codirector of MIT’s landmark initiative “Inventing the Organizations of the 21st Century.”*

*In The Future of Work: How the New Order of Business Will Shape Your Organization, Your Management Style, and Your Life, Malone argues that a convergence of technological and economic factors—particularly the rapidly falling cost of communication—is enabling a change in business organizations as profound as the shift to democracy in governments.*

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# One-stop Shopping for Government Grants

*an interview with*

REBECCA SPITZGO, U.S. Department of Health and Human Services

*Could you tell us about the Grants.gov initiative and when and why was it created?*

Grants.gov was created to provide a single Web site for all federal grant opportunities. It was called for in the president's management agenda and also as part of Public Law 106-107, which is to streamline and simplify the way the federal government does grants. It simplifies the grants management process by providing a central online system to find and apply for grants across the federal government. There are over 900 grant programs from 26 federal agencies that award over 360-plus billion dollars a year.

It's also one of the 24 federal cross-government initiatives for the e-government initiatives that focus on providing government-wide service. It is one of only two of the e-government initiatives that in a recent GAO audit were found to have met all of the goals that were established for the initiative back in February of 2002. The site itself was launched in October 2003. We are now in full production. We've had millions of visitors and thousands of users and all the federal agencies are participating and posting opportunities.

The vision of the program is to provide a single site, to provide a customer face to the government and to do business in the same way, no matter who you're doing business with across the 26 federal agencies. So the goals were to first provide opportunities. Prior to Grants.gov, every agency posted opportunities either maybe through the Federal Register or on their own individual Web sites; there was no central place to easily find and search for grants.

*You mentioned the many different agencies involved, the wide range of grants that are given. What is the relationship between Grants.gov and other federal departments and agencies?*

There are 26 federal grant-making agencies across the government. Of those, 11 are what we call partner agencies for this e-government initiative. The partner agencies have supported the project for the first two years by contributing funds as well as detailees to the project.

We also work with OMB very closely. They were the co-sponsor of all the e-gov initiatives, overseeing them and giving them guidance. Other partners are obviously the grant communities, which include associations, colleges, and universities—anyone we reach out to tell them about the new initiative and how it can help them find and apply for grants.

*Can you explain the Grants.gov process from the perspective of a potential grant applicant?*

First, the potential applicant would find a funding opportunity that they would be interested in applying to. They would come to Grants.gov, go into the "find" piece, and they would start searching for an opportunity and they can do this in many ways; they don't need to know what the agency is that they want to apply for. They can put a subject into the full-text search and search that way.

Then they have an opportunity to look at what we call a synopsis. Now, that never existed before Grants.gov. It was very common to the contracts world but agencies just did a full announcement. So the synopsis gives you about 20 or 30 data elements of the points that people are usually the most interested in: how much money is there, how many awards are you going to make, what's the purpose for this, a very short brief on who is eligible. And if they look at that and find that this looks like something they're really interested in, then they go to the full announcement and see the further details about how you apply and the real nitty-gritty about what's involved with this [grant] competition.

If they find they want to apply...they push that apply button. They would then be taken to the Grants.gov "apply" portion of the system and be able to download the application package. This application package includes all the forms that they would need to fill out to apply, as well as the instructions of how to go about filling them out. They download these to their PC and once they've downloaded them they no longer need to be connected to the Internet. At this point everything can be done on their PC and they need no Internet connectivity.

*Can you tell us a little bit about your upcoming areas of focus for the Grants.gov program?*

Our focus is to get our numbers up, get more agencies utilizing the system, so that it is truly a single site for government [grants]. And to do that we need to have all of the opportunities out there. We have received almost 1,000 applications which we're really excited about but we want to see that number grow by twenty times or more by this time next year.

And the agencies have spent a lot of time in trying to figure out how to make this work, how to streamline their processes, how to use some more of the common forms that we have put out there to be used on a government-wide basis. So we have lots of things that are in the works right now and we really are at that tipping point of being able to go further and have many more programs. And every program we put out there could possibly introduce

us to a new part of the grants community. So every time we put a new program out, we do more outreach. We'll work with the agencies on reaching out to those grant communities that we may not have hit before.

*Rebecca Spitzgo is program director of Grants.gov, and an employee of the U.S. Department of Health and Human Services. Grants.gov celebrated its first anniversary in operation on October 31, 2004. The program has been an IBM client since February 2003.*

*This article was excerpted from the transcript of Rebecca Spitzgo's full radio interview with Paul Lawrence, IBM Business Consulting Services partner in charge of The IBM Center for the Business of Government in Washington, D.C., which is dedicated to stimulating research and facilitating discussion of new approaches to improving the effectiveness of government at all levels in the United States and across the world.*

*The full transcript and audio download of this interview, and more than a hundred other interviews with outstanding government leaders, is available at [www.businessofgovernment.org](http://www.businessofgovernment.org). Each of these interviews was first aired on "The Business of Government Hour" on Washington, D.C. radio station WJFK, FM 106.7, Saturdays from 9:00 a.m. to 10:00 a.m.*

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## Volunteerism is Good for Business, but It's not Business as Usual

*an interview with*

ROBERT K. GOODWIN, Points of Light Foundation

*Corporations today increasingly play a role in fostering a culture of community involvement and volunteerism. How has this changed over time?*

For one thing, there's a greater interest in volunteerism by employees, so as companies attempt to attract and retain the best and brightest workforce they see volunteerism and community engagement as something that must be encouraged if they expect to get and keep the best talent. At a corporate level, and especially among top executives, companies have come to see a correlation between strategic business interests and civic engagement so there is greater support for employee investments in community affairs.

From a statistical standpoint, while the actual volume of volunteering being done by employees hasn't increased all that significantly during the last ten years, the kind and frequency of work being done in communities has changed dramatically in that same period. In the past, the majority of volunteerism involved serving on nonprofit boards, supporting the arts, volunteering at their children's schools, et cetera.

Today, volunteerism is about much more than that. Especially at IBM—but at other corporations, too—companies are now beginning to integrate employee volunteer programs into their core business strategies by tapping into their employees' real expertise and offering employees more hands-on involvement in communities over a more consistent time period. IBM's On Demand Community program does just that, which is why this program is such a breakthrough.

*What role does partnering play in the development of a successful volunteerism program?*

Mutually beneficial relationships and partnerships form the roots of a successful community engagement strategy. The challenge for many companies is to maintain these "win-win" partnerships over the long term and integrate them into their core business strategy so that they have sustainable impact. But to do that both the business and the community partner or school must learn as much as possible about each other so they can respond effectively to each others' needs.

Recently some leading corporations have begun to get beyond mere “checkbook philanthropy,” or spreading philanthropic support around, and have begun to go deeper in their philanthropy by working in collaboration with a set of community partners in areas close to their business interests. This stretches investment of their resources, both dollars and expertise, and deepens their involvement through the kind of leveraging and synergy that a partnership implies. It’s not unusual now to find businesses in the mortgage or financial industry working with housing or community development organizations or to have IBM, which is in the innovation business, working with the world’s science and technology museums.

*What do schools and community organizations need to be successful and what can businesses do to help them?*

Of course, community organizations and schools and the entire voluntary sector need stable and sufficient funding to be successful. But businesses and their employees can do so much more than provide mere cash support. Just like businesses, community organizations need the management structures and infrastructure that can help them meet the needs of their community in an effective and efficient way.

When companies like IBM empower their employees—for example by providing them with the technology tools and the time to prepare a free technology plan for an organization where they volunteer—they are providing them with the ability to make the best use of their available resources and funding and helping them to obtain additional financial support as well. By providing Web-based training on how to be an effective volunteer and an effective board member, companies like IBM can ensure that when their employees show up at a community organization they are there to help and make a real difference. What I find most interesting about IBM’s approach is that it mirrors their business strategy so well. Instead of providing what Prof. Rosabeth Moss Kanter at Harvard Business School called “spare change,” IBM’s On Demand Community members offer communities an opportunity for “real change” and improved productivity.

*What’s the biggest challenge in creating a culture of volunteerism in the workplace?*

Sustained top-level executive commitment is absolutely essential. If you don’t have top-level support and sustain it over time, despite the interest and support of employees it’s very difficult to marshal and fully deploy resources within the company to do much good. With top-level support, volunteerism and community service can be deeply connected to how a business and its employees do their work and becomes part and parcel of it. And by embedding it in the corporate culture it can be sustained through leadership changes and changes in the business cycle or the ebb and flow of corporate success.

I also think that long-term sustained investment and involvement is vital when a business engages with the community. Problems associated with poverty or sustained improvement in education are not a “sprint;” they require “long-distance runners” and long-term sustained investment. Sometimes people who work in the for-profit sector who get involved at the community level are accustomed to projects being completed in precise, delimited, or near-term time frames, and so they expect to see similar results at the community level. Or they would like to move on to the problem or project *du jour*.

However, the problems that communities are dealing with often have such long histories and are so multi-dimensional in their nature that progress is measured in years not quarter to quarter and just when people are most discouraged may be the time to redouble effort and not cut and run. Therefore, managing expectations becomes a challenge for sustained investment and successful effort.

*Robert Goodwin is president and chief executive officer of the Points of Light Foundation, a nonprofit organization that promotes volunteerism in the United States.*

*The Points of Light Foundation and Volunteer Center National Network engages and mobilizes millions of volunteers who are helping to solve serious social problems in thousands of communities.*

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## Standing Out from the Crowd

*an interview with*

JONATHAN FORD, Turning the Tide

### *What is the ultimate goal of Turning the TIDE?*

Our goal is to provide high-tech resources for children and adults who otherwise would not have access to current technology. By having this center, hundreds of people are afforded the same access to technology as those who have computers in their homes.

We're not here to simply promote technology for technology's sake—we want to see it make a measurable difference in a person's life. For the children, the computers offer an array of valuable learning experiences. For the adults, computer skills and access make a huge difference: enabling them to pursue jobs, get valuable resources, and even make social connections with their children.

In addition, the center has been contracted to provide consulting and technical support services for other community efforts. For example, we offer technology training to ex-offenders returning to the workforce as part of an initiative called Project ECHO [Empowering Communities to Help Others], sponsored by a grant from the Philadelphia Workforce Investment Board. This program gives us an opportunity to take what we know about technology and help these people transition back into society. This includes everything from résumés to identifying employers who will hire ex-offenders—anything that gives them a foundation to build from.

### *What led you to found the center?*

Turning the TIDE was started as an outreach of our local church, Taylor Tabernacle. Factory closings and suburban business flight had left little opportunity for locals to learn new technical skills, and so our pastor decided to establish a computer center to serve this need. As we got started, we realized it wouldn't be possible without resources outside of what we had in our church.

When we first met with IBM the center was just a conceptual idea—the place was a mess, with walls being knocked down, et cetera. IBMers Diane Melley and Lynn Rossiter walked into this unsettling environment and listened to our pie-in-the-sky dream of establishing a jobs training facility in this economically depressed neighborhood.

They surprised us by completely embracing the program. And then ideas started flowing and IBM helped us transform the second floor of our 80-year-old building into a nationally recognized neighborhood computer training center.

### *What are the some of the ingredients needed for creating and maintaining a successful partnership with a corporation like IBM?*

The key to any community partnership is to not just get involved but stay involved—make a commitment to see it through. I give a lot of credit to corporations like IBM that are making that kind of investment in communities.

I have a business background and have seen firsthand how corporate partners contribute to communities. There's often what I call a "parachute mentality"—meaning there's no ongoing, sustained support. Members of a corporation come in for a special supporting event and then they disappear, and there's this long gap until the next contact.

To see a company like IBM coming down to the level of a small group like Turning the TIDE—and then remain committed and involved—speaks volumes about what its corporate philosophy is. IBM is to be commended and hopefully other organizations will start making a similar kind of commitment.

Obviously the monetary contribution is significant simply for what it is; that goes without saying. But more importantly, the money and the partnership have enabled us to mature as an organization and position us to gain a favorable assessment from others whom we're now approaching for funding.

### *What advice do you give other community organizations interested in starting a similar program?*

Volunteer groups have to learn to think a little bit broader than merely duplicating what they've already seen someplace else. As they begin to mature and grow, they need to be able to say, "Ok, that's been done. What can we do to provide complementary services in the community? What can we provide here that's missing?"

Learning to deliver a program with quality support and quality tools is not just for the well-funded groups. You can be small, you can be bootstrapped, but if you're committed, you can tap into the resources, the personnel, the tools, and the methodology necessary to help you deliver a first-class program.

In addition, as a community-based organization, if you're not careful you can all become peas in the pod—you come together and talk about the same things over and over again and there's no one able to break out of the mold and challenge you with anything progressive. IBM has always challenged us to think a little differently, beyond what we would have normally thought to do. As a result of this partnership with IBM, I think we're perceived by others as groundbreaking and innovative.

I think you insult the people you serve by giving them a half-baked effort when it comes to quality. When we first started, we used what we had: a mish-mash of outdated

machines. But I always thought that the quality of what we delivered could be so much better. We owed it to the people of the community to provide them with the best. It creates an impression that there is a higher standard they can reach for.

Now, when people from the community arrive at our center, and walk into this brightly lit room with all of this updated equipment, they gain a certain level of confidence—an innovative spirit. And as they begin the training classes, there's a feeling of "maybe I can do something better for myself."

*The Rev. Jonathan Ford is executive director of Turning the TIDE, a community computer training center in West Philadelphia.*

*Turning the TIDE (Technology and Information Delivered for Empowerment) offers free computer education to the Philadelphia community, including an initiative that offers technology training to ex-offenders returning to the workforce.*

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**For more interviews providing the perspectives and opinions of people committed to improving various aspects of corporate responsibility, please visit [www.ibm.com/ibm/responsibility/voices](http://www.ibm.com/ibm/responsibility/voices).**

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— OUR COMPANY —

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## CORPORATE PROFILE

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*IBM has been* in the information technology (IT) industry since that industry began, and we've seen it change many times. Often, we've led those changes. Today, we are again aligned around a single, focused business model: *innovation*.

IBM takes its breadth and depth of insight on issues, processes and operations across a variety of industries, and invents and applies technology to help solve its clients' most important business and competitive problems.

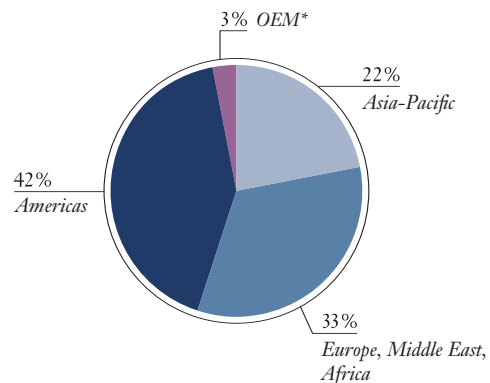
Although we remain committed, as ever, to lead the development of state-of-the-art technologies and the products and service offerings built around them, we measure ourselves today by how well we help clients succeed. That's at the core of what we value, but it's also because the IT industry is on the cusp of a profound shift. The ubiquity of networked computing is changing the ways organizations can, should, and will do business—bringing dramatic improvements in productivity, transforming industries, and creating opportunities for entirely new market segments. That is what we mean when we talk about On Demand Business.

### GLOBAL ROOTS

Our first name has been “International” since 1924—even though we'd been doing business outside the United States for at least a decade prior to our name change. As an example, one of the countries where we had the most revenue growth in 2004 was Brazil, at 15 percent—and yet we've been doing business in Brazil since 1917.

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2004 REVENUE BY GEOGRAPHIC REGION



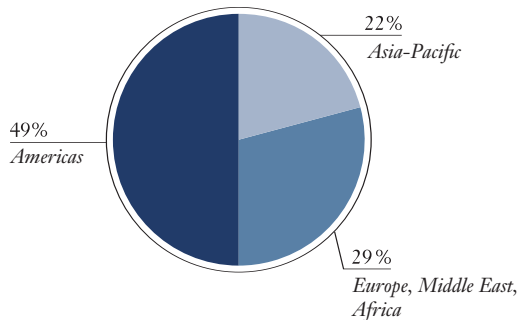
\*original equipment manufacturers, not recorded by geography

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2004 EMPLOYEES BY GEOGRAPHIC REGION



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## On Demand Business

On Demand Business is a new way of conceptualizing and managing business activity. It enables companies to achieve higher levels of responsiveness, flexibility and efficiency than legacy Industrial Age business models—or even those that have been developed more recently. This is now possible through advances in the architecture of computing (see “On Demand Infrastructure,” below), which enable new levels of variability and interoperability among previously unconnected IT systems. This technical integration, in turn, enables end-to-end business integration among internal operations that have historically been separate—and even allows different businesses to interoperate seamlessly. As a result, an On Demand Business is able to detect and react quickly to changes in supply, demand, pricing, competitors’ moves, shifts in customer preferences, and other marketplace dynamics.

On demand also allows leaders to accomplish the seemingly counterintuitive feat of outsourcing tasks to external partners while tightly integrating them into their internal operations. And because they can choose partners with world-class expertise, on demand enterprises can achieve lower costs and greater strategic focus, without sacrificing quality.

Most companies’ first steps toward becoming on demand have been aimed at efficiency, cost savings, productivity and IT integration—addressing, in essence, the infrastructure and organizational fragmentation of the past 20 years. However, once business leaders start down this path, they

soon come to understand the potential of the On Demand Business design to grow their top line by creating entirely new capabilities. In health care, for instance, on demand is leading to personalized medicine—as the integration of patient histories and genomic data is changing the nature of diagnosis and patient care. In insurance, on demand is making possible products and services tailored to the driving habits of individual policyholders.

## ON DEMAND INFRASTRUCTURE

Over the past 20 years, personal-computer economics drove many organizations to add enormous IT capacity and to distribute it throughout their companies—but they hardwired it to discrete operations. As a result, many clients are dependent on widely dispersed applications and systems that do not easily interoperate—and therefore are significantly underutilized. This has resulted in IT infrastructures that are highly complex, difficult to manage and expensive to maintain. In just one segment of IT spending—servers—operating and maintenance costs today far exceed investments in new server products and capacity.

The solution to these realities—and a key to freeing up investments in new products and workloads—lies in a new computing architecture that we call the On Demand Operating Environment. It capitalizes on the most important developments in technology and computer science: It exploits a networked world. It is based on open standards, which are taking hold in the IT industry for the first time. It enables integration of technology and business processes, and it utilizes powerful new core technologies, such as virtualization and autonomic systems.

*(For more information on the potential of on demand, visit IBM’s On Demand Business site: [www.ibm.com/ondemand](http://www.ibm.com/ondemand).)*

## Business Model

Our business model is based on innovation—the invention and commercialization of technology, combined with deep insight into the performance and processes of business and industries—with the goals of helping our clients transform their enterprises for competitive advantage and providing long-term value to our shareholders. In support of these objectives, our business model has been developed over time through strategic investments in services and technologies that have the best long-term growth and profitability prospects based on the value they deliver to clients.

To maintain our ability to remain at the forefront of innovation, this model is designed to allow for flexibility and periodic rebalancing of our portfolio. In 2004, 14 acquisitions were completed, all in software and services, at an aggregate cost of over \$2 billion, and in the fourth quarter the company announced the agreement to sell its Personal Computing Division, a unit of the Personal Systems Group, to Lenovo Group, China's largest manufacturer and distributor of personal computers.

The company's portfolio of capabilities ranges from services that include business performance transformation services to software, hardware, fundamental research, financing, and the component technologies used to build larger systems. These capabilities are combined to provide business insight and solutions for enterprises.

In terms of financial performance, over the last two years, we have increased our participation in the high-growth areas of our industry while we have gained share in key market segments during changing economic environments. Our strategy of broad capabilities results in less volatile returns overall, because each individual capability has unique financial attributes. Some involve contractual long-term cash and income streams, while others involve cyclical transaction-based sales. The annuity-like business delivers incremental growth with a high degree of stability and provides substantial cash, while our new engagements deliver more significant revenue growth and require a level of investment to generate success.

In terms of marketplace performance — i.e., the ability to deliver client value — it's important to understand that the fundamental strength of our business model is found not in either the breadth of our portfolio alone or solely in the depth of our expertise in the various industries and their processes, but in the way we create business solutions from among our capabilities and relationships for a broad range of clients.

## OUR CLIENTS

IBM's clients include many different kinds of enterprises, from sole proprietorships to the world's largest organizations, governments and companies representing every major industry and endeavor. Over the last decade, we have exited or greatly de-emphasized our involvement in consumer market segments and divested the company of other noncore businesses to concentrate on the enterprise market. In IBM's view, opportunities in the enterprise area

are superior — representing approximately two-thirds of the IT industry's revenue. As a result, we have made acquisitions and invested in emerging business opportunities important to our enterprise clients. Many of these investments have grown into multibillion dollar businesses in their own right, and are now contributing to IBM's growth.

The majority of the company's enterprise business — which excludes the company's original equipment manufacturer (OEM) technology business — occurs in industries that are broadly grouped into six sectors, around which the company's go-to-market strategies, and sales and distribution activities are organized:

- **Financial Services:** Banking, Financial Markets, Insurance
- **Public:** Education, Government, Healthcare, Life Sciences
- **Industrial:** Aerospace, Automotive, Defense, Chemical and Petroleum, Electronics
- **Distribution:** Consumer Products, Retail, Travel, Transportation
- **Communications:** Telecommunications, Media and Entertainment, Energy and Utilities
- **Small and Medium Business:** Mainly companies with fewer than 1,000 employees

## STRATEGY

IBM operates in the IT industry, which comprises three principal categories:

- *Business Value*
- *Infrastructure Value*
- *Component Value*

IBM continues to see a shift in revenue and profit growth from Component Value to Infrastructure Value and Business Value, where we think revenue and profit potential will be greatest in the years ahead.

### *Business Value*

We help our clients transform their businesses and gain competitive advantage by applying our skills and experience to business performance challenges specific to the client's industry or across industries and processes. IBM enters into long-term relationships and creates solutions for clients, driving on demand business innovation, on its own or in partnership with other companies. We draw upon our broad product and services offerings, including Business Consulting Services, IBM Research, industry-leading middleware, and our deep experience in systems and technology design.

### *Infrastructure Value*

Infrastructure Value includes systems, such as high-volume servers; middleware software that can interconnect disparate operating systems and applications with data; storage networks; and other devices. It also refers to such services as infrastructure management—whether on the client’s premises or managed remotely at IBM’s own facilities—and consulting on how to improve and strengthen the infrastructure and realize greater return on investment in it. Central to our approach for building value in the infrastructure category is our support of open standards and our active promotion of Linux and other open source platforms, which help our clients control costs and allow them to benefit from the latest advances created by development communities around the world. IBM’s strategic objectives are to deliver open and integrated offerings and to expand partnerships.

### *Component Value*

Component Value includes advanced semiconductor development and manufacturing for IBM’s server and storage offerings, as well as services, technology and licenses provided to OEMs that create and market products requiring advanced chips and other core technology elements. We leverage these components in our own products and services even while we participate in selected market segments, focusing on key industry partners.

## Values

Since IBM’s inception nearly a century ago, our company has been grounded in strongly held principles. Both Thomas Watson Sr. and Jr. came to call these our “Basic Beliefs,” and they committed us to a broad definition of leadership, as a company that strives to be a trusted partner for customers, a reliable long-term investment, a progressive employer, and a responsible corporate citizen.

These beliefs guided the company through decades of extraordinary change, and grew into practices and approaches that became the qualities that people identified with “an IBMer.” They also helped IBM become a model for other corporations, one of a few outstanding institutions identified with modern progress and beneficial innovation.

However, the world is very different today. The IT industry is different from the one we helped create. The expectations of society and of groups within society are changing. Our own expectations have changed, as has our

workforce: Half of our people have been with IBM fewer than five years; we now hire recent college graduates as well as thousands of experienced professionals every year; and thousands more become IBMers through outsourcing deals and acquisitions.

### VALUESJAM

In July 2003, IBM Chairman Sam Palmisano invited IBMers around the world to participate in a bold 72-hour experiment, in which IBMers themselves would discuss and determine just what it was we represented to ourselves and to the rest of the world. More than 22,000 IBMers from every geographic region participated in ValuesJam, conducted online via the IBM On Demand Workplace. They were honest, passionate and clear, working to define who we are as IBMers, what we stand for, and what our collective purpose is.

Several thousand comments were analyzed and follow-up interviews were conducted to distill the essence of what jam participants had said into three principles of behavior to guide everything we do. In other words, to state the values of IBMers. They are:

**Dedication to every client’s success.** It’s a noble aspiration—but also a competitive necessity. IBM’s relationships with its clients are no longer based on product sales, but often on deep, long-term partnerships built around our knowledge of each client’s business and the market environment. We still sell products, services and solutions, but all with the goal of helping our clients succeed, however they measure success. IBMers are passionate about building these relationships because all of us, no matter where we work, have a role in our clients’ success.

**Innovation that matters—for our company and for the world.** At their best, IBM’s innovations transcend the technology industry, enabling others to innovate as well. Of course, we have a history of big, game-changing discoveries that opened new spheres of exploration: D-RAM, the relational database, System/360, and many more. But we also pursue innovation in education, work/life balance, environmental protection, and all the ways a company organizes and runs itself. We believe in progress, believe that the application of science and reason can improve business, society, and the human condition. We innovate to make the world, society, and our relationships a little better than we found them.

### Trust and personal responsibility in all relationships.

The heart of IBM is the personal commitment each IBMer makes to building and preserving trust—even if things don't go smoothly—with all the constituencies of our business: clients, partners, communities, investors and fellow IBMers. This goes beyond honesty; it means going above and beyond what other parties expect, in order to help them achieve success. In a company of IBM's size, that's only possible when we trust our colleagues to do the right thing, relying on their judgment and skills, confident they will listen, follow through and keep their word.

When these statements of our values were announced in the fall of 2003, the reaction from IBMers was overwhelmingly positive—even as they recognized that these values describe us at our very best, but don't necessarily reflect the way we experience IBM all the time. The work under way since has been to redesign programs, reexamine policies and create the vehicles that will make it possible for IBMers to work and act in accord with our values, regardless of where they work and what kind of work they do. This has already led to changes throughout the company, at every level:

- **On Demand Community:** In November 2003, we created the On Demand Community, to support and enable the volunteer efforts of our employees and retirees.
- **Pooled pricing employees:** In January 2004, we “pooled” the employees who set prices on our offerings, to make it easier to bring together the capabilities of IBM for every client.
- **Executive stock options:** Also in January 2004, we announced a new executive stock option formula, in which our senior executives now benefit from their stock options only after shareholders realize a 10 percent gain.
- **New personal goals program:** In February 2004, we redesigned our programs for setting employee goals and assessing achievements to reflect our values more concretely.
- **New learning and development programs:** In March 2004, we established a new framework, built around our values, for the development of competencies among our employees, managers, executives, sales leaders and technical leaders.
- **Manager Values Fund:** In August 2004, we set aside a special fund worth \$100 million for use by IBM's 21,000 first-line managers in extraordinary situations involving clients or employees, or to fund a promising idea or innovation.
- **World Community Grid:** In November 2004, we created—with a group of leading foundations, public organizations and academic institutions—the World Community Grid, a “virtualized supercomputer” that will apply the unused processing power of the world's PCs to the most profound challenges in the health sciences and for humanitarian causes, such as predicting natural disasters, improving crop yields, and evaluating the supply of critical resources.

- **Global Innovation Outlook:** Also in November 2004, after consultations with numerous leaders from business, academia, government and other organizations, we released our first Global Innovation Outlook, an examination of three areas that affect broad swaths of society and are ripe for innovation: the future of healthcare; the relationship between government and its citizens; and the intersection of work and life.
- **Opportunity Marketplace:** And in January 2005, we launched a new capability in the United States, soon to be worldwide, that helps match the expertise of IBMers to the available job opportunities at IBM and enables self-guided assessments of and training for skills that match current and anticipated market needs.

### WORLDJAM 2004

In October 2004, IBMers came together again in another global jam—this time to propose and then choose the next steps the company should take to make the company a living, breathing embodiment of the values established the year before. The process ultimately yielded 35 ideas to which IBM senior management committed. Overwhelming support was given to two ideas in particular:

- *Implement an employee survey on the effectiveness of our managers*
- *Consolidate and align back-office sales support functions*

Including these two ideas, 26 of the top-rated ideas fell into three major categories:

- *“Lower the center of gravity” for decision making at IBM, and improve cross-unit integration for client success*
- *Help managers become better managers*
- *Enable innovation and growth*

Senior executives also committed to nine other highly rated ideas, and work on implementing each of the 35 ideas began in early 2005.

Today, IBMers around the world are finding ways to make our values come to life. They're describing them as the foundation for new directions, as the rationale for doing things differently and better. They're using them as the basis for discussions about how we can grow our business and innovate faster. They're asking tough questions about what our values imply for how we do business today and how we need to lead tomorrow. Most important, they are using these values to make decisions for our business, especially in instances in which competing interests and priorities might otherwise result in stalemates or inconsistencies.

## CORPORATE GOVERNANCE

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*IBM is fortunate:* We are able to attract the very best directors. Our Board is a healthy mix of skills and expertise, with diverse backgrounds, talents and perspectives working together.

We are fortunate in another way, as well: We saw the need for an increased focus on corporate governance long before many companies found themselves having to scramble to fulfill regulatory or investor requirements in the wake of the dot-com bubble, a global economic downturn, or—in a few memorable headlines—financial and ethical failures.

More than a decade ago, IBM was at the forefront on issues of Board oversight through the creation of a committee devoted exclusively to matters of corporate governance. Since then, our Directors and Corporate Governance Committee has been responsible for reviewing and articulating the Board's governance practices and for performing functions such as periodically assessing the independence of directors, and reviewing and considering IBM's position and practices on significant issues of corporate responsibility.

The men and women on our board are a reflection of IBM: we are a global business, working with clients and partners from a broad range of industries, educational institutions and not-for-profits. And they represent our shareholders throughout the year, working to keep IBM financially sound, legally compliant and socially responsible.

In the end, the work of earning investor confidence transcends external rules, controls and oversight. Confidence rises and falls based on the core values and standards of behavior expected of leaders, and of every individual in the corporation.

This onus falls squarely on corporations, their boards, their management and every employee—not as impersonal institutions or representatives of them—but as people. In the end, this is a question of values, not of process.

### Leadership

The IBM Board has long adhered to governance principles designed to assure the continued vitality of the Board and excellence in the execution of its duties. Since 1994, the Board has had in place a set of governance guidelines, reflecting those principles. They cover issues such as the optimal number of Board members (10-14), who determines meeting agenda items (Chairman and committee chairs), and the general criteria for people selected to join the Board (business or professional experience, diversity of background, and array of talents and perspectives).

*More information is available online about IBM's corporate governance guidelines: [www.ibm.com/investor/corpgovernance](http://www.ibm.com/investor/corpgovernance).*



## DIRECTORS

**Cathleen Black** is president of Hearst Magazines, a division of The Hearst Corporation, a diversified communications company. She is chair of IBM's Directors and Corporate Governance Committee and a member of IBM's Executive Committee. Ms. Black became an IBM director in 1995.

**Kenneth I. Chenault** is chairman and chief executive officer of American Express Company, a financial services company. Mr. Chenault became an IBM director in 1998.

**Juergen Dormann** is chairman of the board of ABB Ltd., a manufacturer of power and automation technologies. He is a member of IBM's Executive Compensation and Management Resources Committee. Mr. Dormann was an IBM director from 1996 to 2003, and he became an IBM director again in 2005.

**Michael L. Eskew** is chairman and chief executive officer, United Parcel Service, Inc., a provider of specialized transportation and logistics services. He is a member of IBM's Audit Committee. Mr. Eskew became an IBM director in 2005.

**Charles F. Knight** is chairman emeritus of Emerson Electric Co., a manufacturer of electrical, electromechanical and electronic products and systems. He became a director of IBM in 1993 and is chairman of the IBM Executive Compensation and Management Resources Committee and a member of the Executive Committee.

**Minoru Makihara** is a senior corporate advisor and former chairman of Mitsubishi Corporation. He is a member of IBM's Directors and Corporate Governance Committee. Mr. Makihara was an IBM director from 1997 to 2003, and he became an IBM director again in 2004.

**Lucio A. Noto** is a managing partner of Midstream Partners LLC, an investment company specializing in energy and transportation projects. He is chairman of IBM's Audit Committee and a member of the Executive Committee. Mr. Noto became an IBM director in 1995.

**Samuel J. Palmisano** is chairman of the Board, president and chief executive officer of IBM and chairman of IBM's Executive Committee. Mr. Palmisano joined IBM in 1973; he became an IBM director in 2000.

**Joan E. Spero** is president of the Doris Duke Charitable Foundation. She is a member of IBM's Executive Compensation and Management Resources Committee. Ms. Spero became an IBM director in 2004.

**Sidney Taurel** is chairman of the board, president and chief executive officer of Eli Lilly and Company, a pharmaceutical company. He is a member of IBM's Audit Committee. Mr. Taurel became an IBM director in 2001.

**Charles M. Vest** is president emeritus and professor of mechanical engineering at the Massachusetts Institute of Technology. He is a member of IBM's Audit Committee. Dr. Vest became an IBM director in 1994.

**Lorenzo H. Zambrano** is chairman and chief executive officer of CEMEX, S.A. de C.V., a producer and marketer of cement and ready-mix concrete products. He is a member of IBM's Directors and Corporate Governance Committee. Mr. Zambrano became an IBM director in 2003.

## COMMITTEES

- **The Executive Committee** is empowered to act for the full Board in intervals between Board meetings, with the exception of certain matters that by law may not be delegated. The committee meets as necessary, and all actions by the committee are reported at the next Board of Directors meeting. The committee held one meeting in 2004.
- **The Audit Committee** is responsible for reviewing reports of the company's financial results, audits and internal controls, in compliance with federal procurement laws and regulations. The committee reviews the implementation of IBM's Business Conduct Guidelines and management's system to monitor compliance with the guidelines. The committee assesses the effectiveness of the internal audit effort and the responsiveness of management in correcting audit-related deficiencies. Among other responsibilities, the committee is charged in its charter with maintaining procedures for the receipt, retention and treatment of complaints received by the company regarding accounting, internal accounting controls or auditing matters; and for the confidential, anonymous submission by IBM employees of concerns regarding questionable accounting or auditing matters. The committee held five meetings in 2004.
- **The Directors and Corporate Governance Committee** was formed in 1993 and is devoted primarily to the continuing review and articulation of the governance structure of the Board of Directors. The committee is responsible for recommending qualified candidates to the Board for election as directors of the company, including the slate of directors that the Board proposes for election by stockholders at the Annual Meeting. The committee is also responsible for reviewing and considering the company's position and practices on significant issues of corporate public responsibility, such as workforce diversity, protection of the environment, and philanthropic contributions, and it reviews and considers stockholder proposals dealing with issues of public and social interest. The committee held three meetings in 2004.
- **The Executive Compensation and Management Resources Committee** has responsibility for administering and approving all elements of compensation for elected corporate officers and certain other senior management positions. The committee has the direct responsibility to review and approve the corporate goals and objectives relevant to CEO compensation, to evaluate the CEO's performance in light of those goals and objectives, and—together with the other independent directors—to determine and approve the CEO's compensation level based on this evaluation. The committee also obtains ratification of the Board of all items of compensation for the second highest-paid executive. The committee held four meetings in 2004.

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## CONTACTING IBM'S BOARD

Stockholders and other interested parties who wish to communicate with the non-management directors of the company can mail their correspondence to:

**IBM Non-Management Directors  
c/o Chair, IBM Directors and  
Corporate Governance Committee  
IBM Corporation  
Mail Drop 390  
New Orchard Road  
Armonk, NY 10504**

**e-mail to: [nonmanagementdirectors@us.ibm.com](mailto:nonmanagementdirectors@us.ibm.com).**

Information shown here about IBM's Board of Directors is based on the 2005 IBM proxy statement. For more recent information about IBM's Board of Directors, visit IBM's Corporate Governance site: [www.ibm.com/investor/corpgovernance](http://www.ibm.com/investor/corpgovernance)

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## External Audits

IBM uses independent public accountants for a variety of activities. Foremost, IBM uses public accountants to attest to the accuracy of IBM's annual consolidated financial statements. IBM also uses public accountants to perform any additional audit, attestation, review, tax services, or other activities that are required or contemplated by securities legislation and stock exchange regulations. Additionally, many IBM subsidiaries outside the United States require separate, independent audits to meet local legal and tax requirements. It is the responsibility of the Audit Committee to recommend the independent accounting firms to be retained for the audit of IBM's financial statements. This recommendation is subject to stockholder ratification.

## SARBANES-OXLEY REQUIREMENTS

The Sarbanes-Oxley Act of 2002, signed into law by President Bush in July 2002, has many requirements. The most visible one is prescribed in Section 404, which requires companies to publish an opinion in their annual reports on the effectiveness of their internal controls over financial reporting. The optimal situation for all companies is to publish a "clean" opinion, meaning one that does not include the disclosure of any material weaknesses. While that seems simple enough, many companies were in a last-minute dash to complete the documentation and testing required to assess their control posture.

At IBM, we have looked at the implementation of Section 404 as an opportunity to retool our principal controls, integrating reporting of the testing and assessment of controls into the financial reporting cycle. The good news for us is that our long-standing investment in controls—including semiannual control assessments by line management, preimplementation control and auditability certification of all financial-related application systems, and our worldwide business controls resources—made our efforts to comply with this watershed legislation less cumbersome than for many other companies. IBM's 2004 Annual Report contains the company's opinion on internal controls, which demonstrates the return on the investment we have made in this area.

## MANAGEMENT SYSTEM

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*For any enterprise hoping to endure, no “system” or array of systems can effectively make the most important decisions. In fact, in today’s pace of business, reliance on a top-down, hierarchical set of management principles could present unnecessary risks and dangers.*

To be sure, any company committed to fiscal, legal, client, social and environmental responsibility will institute controls and audits to promote behavior that’s ethical, accurate and responsible. IBM seeks to be among the best companies in this regard. But these checks are only as effective as the underlying principles of the organization and its people.

And IBM has been managed according to guiding principles since its earliest days. A set of such “basic beliefs” was laid down by Thomas Watson, Sr., in 1914 and served the company for most of the rest of the century, earning IBM the reputation of a well-managed company—even among the best in the 20th century.

In late 2003, IBM began the work of reshaping its programs and policies to align with how we understand our values today: dedication to every client’s success; innovation that matters, for our company and for the world; and trust and personal responsibility in all relationships. In some instances, we have adapted or updated programs that already represented what it means to be an IBMer. In many other cases, we are streamlining processes and establishing initiatives that didn’t exist before, which will help us build a company that better reflects these values.

In 2004 and into 2005—and for as long as we continue to innovate and reinvent ourselves, as we have always done—we are asking ourselves tough questions about how our values should help us make decisions in running our business. And we are redesigning our management

system, based on those values, to support the very best this company has to offer.

### Objectives

The purpose of IBM’s management system is to bring our company continually more in line with IBMers’ values. This includes compliance with ethical and legal standards, certainly, but it also goes much deeper to describe the decisions that support and give life to IBM’s strategy, brand and culture. For that reason, our management system must be both global—so that IBMers everywhere have a common standard for behavior and responsibility—and flexible enough to meet local needs and customs, where appropriate.

On any given day, hundreds of thousands of IBMers are making sales, developing solutions, and building relationships. We have 329,000 employees in 75 countries serving clients in 174, and as many as 70 major product or service lines. All the intersections of those factors—which is where our business ultimately takes place—add up to more than 100,000 points where decisions, trade-offs, allocations and commitments get made every day. In this environment, and given the pace of change in our own industry and the wide variety of roles and jobs performed by IBMers, no generic, centrally managed system could operate quickly enough or with enough flexibility to address every situation that may arise.



So just as IBM's values are unique to IBM, our management system must enable us to operate our unique portfolio of businesses in all the countries where we have operations or clients.

Using this singular approach, we are able to meet or exceed the objectives of various national and international codes of conduct and principles. IBMers consider their company's integrity, heritage and reputation for progressive leadership to be among the fundamentals that differentiate us. In our view, therefore, a business environment that recognizes and rewards leadership in corporate responsibility will generally create positive industry developments and best practices as competitive assets faster and more effectively than they would be created under a profusion of standards or guidelines from a variety of organizations dictating a minimum set of requirements for all businesses in all instances. That is why IBM founded and continues to lead the Global Leadership Network for Corporate Citizenship, which is an effort to identify and integrate leadership practices in corporate citizenship into core business strategy.

## Business Conduct Guidelines

Central to IBM's system for managing the company is every employee's annual review of and commitment to our Business Conduct Guidelines.

The guidelines outline IBM's legal requirements and provide guidance on the company's business values. All employees worldwide are periodically required to read the guidelines and to certify their compliance.

Each section of the Business Conduct Guidelines covers an area in which employees have responsibilities to the company.

- *Personal conduct and protection of IBM's assets.*
- *Obligations in conducting IBM's business with other people and organizations.*
- *Personal responsibilities, such as public service, use of insider information, and avoiding conflicts of interest.*

The first version of the IBM Business Conduct Guidelines was drafted in the 1960s as a common set of principles to help each employee understand accepted standards of behavior. They are continually reviewed and updated, at least annually, so that they reflect the proper courses of action in situations that companies and their employees face today.

IBM enforces these guidelines vigorously. Any employee found in violation of these guidelines will receive a reprimand, suspension of or termination of employment, depending on the severity of the situation. In the event that an individual's violation of these guidelines also constitutes illegal activity, IBM will participate fully in any investigation or prosecution.

To support IBMers' commitment to ethical behavior, in 2004, IBM piloted a program of Web-based, in-depth training on the financial integrity issues covered by the Business Conduct Guidelines. The pilot program involved employees in the United States who report, record or assess revenue for the company. Through the use of simulations and other learning activities, the training reminds employees of the issues involved in maintaining our high ethical standards, and provides clear advice on ensuring IBM's financial integrity. After a successful pilot program, the training will be conducted with IBMers around the world beginning in 2005.

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*For the full text of IBM's Business Conduct Guidelines, visit [www.ibm.com/investor/corpgovernance/cgbcg.phtml](http://www.ibm.com/investor/corpgovernance/cgbcg.phtml).*

## Policies

Formal corporate policies issued by the IBM chief executive officer (or the senior officer he directs) govern company-wide actions within IBM and actions with all third parties.

Our corporate policies reflect IBM's values and the resulting management system within which our decisions are made. Their intent is to express clear direction on the things that are fundamental, basic, most important and therefore most enduring in our business.

IBM has corporate policies that cover the following issues:

- *Business conduct and ethics*
- *Reciprocity*
- *Workforce diversity*
- *Politics*
- *Well-being and safety*
- *Data privacy*
- *Diverse business relationships*
- *Environmental affairs*
- *Quality*
- *Global employment standards*

## BUSINESS CONDUCT AND ETHICS

IBM is committed to principles of business ethics and lawful conduct. It is IBM's policy to conduct itself ethically and lawfully in all matters and to maintain IBM's high standards of business integrity.

Employees must at all times comply with IBM's business conduct and related guidelines. Violation of any IBM guideline is cause for discipline, including dismissal from the company. Employees should consult their management immediately if they have any question whether their actions could violate an IBM guideline.

Furthermore, it is IBM's practice to voluntarily and promptly disclose known violations of government procurement laws to appropriate officials of government. In the event that IBM benefited economically from such known violations, it is our practice to reimburse the government customer accordingly. IBM employees should immediately make known to appropriate levels of management, either directly or through the Open Door or Speak-Up programs, any and all allegations of violations in connection with any government contract.

The Senior Vice President and General Counsel is responsible for providing specific instructions regarding business conduct and ethics and, as appropriate, directing periodic reviews, including business conduct guideline certification programs, to ensure compliance. Each operating unit or subsidiary is responsible for implementing such instructions, including administering certification programs.

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*In effect since August 15, 1995; replaces earlier policy dated November 10, 1986.*

## RECIPROCITY

It is IBM's policy neither to buy nor to sell on a reciprocity basis. To maintain the high performance standards of our products, we must base all our purchases on quality, price and the supplier's reliability. To use reciprocity as a purchasing consideration would limit our field of supply and could jeopardize our product quality and price.

In addition, we should never use our extensive purchases to aid our selling efforts. We must leave customers free to buy, unhampered by any reciprocity considerations.

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*In effect since November 10, 1966; replaces earlier policy dated January 26, 1961.*

## Guideline A

IBM Procurement is in full support of IBM's policy regarding reciprocity and at no time should this policy be compromised; i.e., Procurement should never change a sourcing decision based on a supplier's purchases, or lack of purchases, from IBM.

However, all major customers deserve the utmost courtesy and attention from all IBM employees, and this includes Procurement. This courtesy and attention, from a Procurement point of view, means:

1. Procurement will advise these suppliers of any Procurement strategies or plans that may impact that supplier's business.
2. Procurement will give these suppliers the opportunity to quote on any IBM business that they believe they are qualified for.
3. Procurement will help these suppliers gain access to a somewhat higher management level than their level of business with IBM might normally justify.
4. Procurement will make sure that affected IBM salespeople and account executives are advised of major events, good or bad, in the relationship; especially, if a major customer is about to lose a significant amount of business. IBM sales must be notified BEFORE the supplier is notified.

IBM Sales and Services publishes a list of IBM's major customers.

We should be very forthright, when the question arises, in explaining our no-reciprocity policy to suppliers.

## Guideline B

From time to time, IBM may divest from certain areas of the business. In situations where IBM is a significant customer of the divested area, it may make sense for IBM to buy products from the acquiring company for a period of time.

This approach has two major benefits: first, it maintains the supply to IBM—finding an alternative supplier to completely replace the previously internally sourced supplier could potentially cause major disruptions while any new supplier gained a better understanding of the IBM requirements; and, second, providing the potential for a revenue stream for a defined period can make the sale more attractive to possible acquirers.

Any "partnering" arrangements of this nature require the approval of the CFO of the IBM Corporation.

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*Guidelines updated as of May 28, 2004.*

## WORKFORCE DIVERSITY

The employees of IBM represent a talented and diverse workforce. Achieving the full potential of this diversity is a business priority that is fundamental to our competitive success. A key element in our workforce diversity programs is IBM's long-standing commitment to equal opportunity.

Business activities such as hiring, promotion and compensation of employees are conducted without regard to race, color, religion, gender, gender identity or expression, sexual orientation, national origin, disability or age. These business activities and the design and administration of IBM benefit plans comply with all applicable laws, including those dealing with equal opportunity. For qualified people with disabilities, IBM makes workplace accommodations that comply with applicable laws, and that IBM determines are reasonable and needed for effective job performance. In respecting and valuing the diversity among our employees, and all those with whom we do business, managers are expected to ensure a working environment that is free of all forms of harassment.

This policy is based on sound business judgment and anchored in our IBM principles. Every manager in IBM is expected to abide by our policy, and all applicable laws on this subject, and to uphold IBM's commitment to workforce diversity.

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*In effect since January 1, 2003.*

## POLITICAL CONTRIBUTIONS AND EMPLOYEE PARTICIPATION IN POLITICS

It is IBM's long-standing policy that we participate in politics as private citizens, not as IBMers. Therefore, it is the policy of the IBM Company not to make contributions of resources such as money, goods or services to political candidates or parties. This policy applies equally in all countries where IBM does business, regardless of whether or not such contributions are considered legal in any host country.

We encourage IBM employees to participate in political activity in their individual communities and countries. The company will do everything reasonable to accommodate employees who need to be away from work while running for or holding political office, or fulfilling significant party duties during a campaign or election. IBM will not pay employees for time off for political activity. However, if a country where IBM does business has a law that requires an employer to give time off, with pay, to any employee holding public office, then that law takes precedence.

Because IBM does business with many levels of government, we have instituted procedures designed to avoid conflict of interest situations for IBM employees holding government offices. These procedures must be followed.

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*In effect since December 19, 1975; replaces earlier policy dated December 20, 1966.*

## EMPLOYEE WELL-BEING AND PRODUCT SAFETY

IBM has a long tradition of excellence in employee well-being and product safety. The importance we place in these efforts demonstrates our commitment to employees, customers and business partners.

Corporate strategies, instructions and procedures must support our commitment to employee well-being and product safety. Each of us, manager and employee alike, shares a personal responsibility for the following objectives:

- Provide a safe and healthful workplace for our employees.
- Provide products that are safe for use by our customers and employees.
- Meet applicable legal requirements and voluntary practices to which we subscribe where we operate and sell products.
- Incorporate employee well-being and product safety requirements in business strategies, plans, reviews and product offerings.
- Implement, measure, and continually strive to improve well-being processes for preventing work-related accidents, injuries and illnesses.
- Foster employee involvement and provide appropriate well-being education to employees to enhance their ability to work safely and productively.
- Perform audits and self-assessments of our conformance with employee well-being and product safety requirements with results reported to senior executive management.
- Investigate and address work-related and product safety incidents.
- Provide appropriate resources to fulfill these objectives.

Our support for well-being through prevention is vital to our innovation, productivity and morale. We have realized enormous dividends through customer and employee confidence in the safety of our products and our workplaces. The IBM Company expects nothing less in our efforts than the excellence we have attained in these areas.

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*In effect since June 20, 2001; replaces earlier policy dated November 17, 1997.*

## DATA PRIVACY

As a global company, IBM's business processes increasingly go beyond the borders of one country. This globalization demands not only the availability of communication and information systems across the IBM group of companies, but also the worldwide processing and use of information within IBM.

IBM remains committed to protecting the privacy and confidentiality of personal information about its employees, customers, Business Partners (including contacts within customers and Business Partners) and other identifiable individuals. Uniform practices for collecting, using, disclosing, storing, accessing, transferring or otherwise processing such information assists IBM to process personal information fairly and appropriately, disclosing it and/or transferring it only under appropriate circumstances.

This policy letter sets forth the general principles that underlie IBM's specific practices for collecting, using, disclosing, storing, accessing, transferring or otherwise processing personal information. These general principles apply to the processing of personal information worldwide by IBM.

The general principles are:

### ***Fairness***

IBM will collect and process personal information fairly and lawfully.

### ***Purpose***

IBM will collect only personal information that is relevant to and necessary for a particular purpose(s) and process personal information in a manner that is not incompatible with the purpose(s) for which it is collected.

### ***Accuracy***

IBM will keep personal information as accurate, complete and up-to-date as is necessary for the purpose for which it is processed.

### ***Disclosure***

IBM will make personal information available inside or outside IBM only in appropriate circumstances.

### ***Security***

IBM will implement appropriate technical and organizational measures to safeguard personal information and instruct third parties processing personal information on

behalf of IBM, if any, to process it only in a manner that is consistent with processing it on IBM's behalf, and to implement appropriate technical and organizational measures to safeguard the personal information.

### ***Access***

IBM will provide individuals with appropriate access to personal information about them.

The application of these principles is more particularly described in the applicable IBM Corporate Instructions (and any accompanying implementation guidelines) relating to processing personal information.

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*In effect since November 24, 1998.*

## COMMITMENT TO DIVERSE BUSINESS RELATIONSHIPS

Wherever IBM operates around the world, we strive to conduct our business in a fair and equitable manner. Consistent with this objective, we follow local laws and customs of the countries in which we operate, and we actively seek to establish close working relationships with businesses indigenous to those countries.

The policy of the IBM Corporation is to provide diverse businesses the opportunity to participate in all areas of IBM's marketing, procurement and contracting activities. This policy applies to all firms or institutions regardless of the business owner's race, color, religion, gender, gender identity or expression, sexual orientation, national origin, disability, age or status as a special disabled veteran or other veteran.

In the United States, these activities comply with all applicable federal, state and local laws, including those dealing with the use of small business; small disadvantaged business; women-owned small businesses; HUBZone businesses; veteran-owned businesses and service-disabled veterans.

This policy applies to all areas of expenditures, whether for products or services. Action should be taken by all IBM organizations to ensure that this policy is implemented and that there are programs that ensure IBM's performance against this commitment.

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*In effect since June 25, 2003; replaces earlier policy dated November 19, 1993.*

## ENVIRONMENTAL AFFAIRS

IBM is committed to environmental affairs leadership in all of its business activities. IBM has had long-standing corporate policies of providing a safe and healthful workplace, protecting the environment, and conserving energy and natural resources, which were formalized in 1967, 1971 and 1974, respectively. They have served the environment and our business well over the years and provide the foundation for the following corporate policy objectives:

- Provide a safe and healthful workplace and ensure that personnel are properly trained and have appropriate safety and emergency equipment.
- Be an environmentally responsible neighbor in the communities where we operate, and act promptly and responsibly to correct incidents or conditions that endanger health, safety or the environment. Report them to authorities promptly and inform affected parties as appropriate.
- Conserve natural resources by reusing and recycling materials, purchasing recycled materials, and using recyclable packaging and other materials.
- Develop, manufacture and market products that are safe for their intended use, efficient in their use of energy, protective of the environment, and that can be reused, recycled or disposed of safely.
- Use development and manufacturing processes that do not adversely affect the environment, including developing and improving operations and technologies to minimize waste; prevent air, water, and other pollution; minimize health and safety risks; and dispose of waste safely and responsibly.
- Ensure the responsible use of energy throughout our business, including conserving energy, improving energy efficiency, and giving preference to renewable over nonrenewable energy sources when feasible.
- Participate in efforts to improve environmental protection and understanding around the world and share appropriate pollution prevention technology, knowledge and methods.
- Utilize IBM products, services and expertise around the world to assist in the development of solutions to environmental problems.
- Meet or exceed all applicable government requirements and voluntary requirements to which IBM subscribes. Set and adhere to stringent requirements of our own no matter where in the world the company does business.
- Strive to continually improve IBM's environmental management system and performance, and periodically issue progress reports to the general public.
- Conduct rigorous audits and self-assessments of IBM's compliance with this policy, measure progress of IBM's environmental affairs performance, and report periodically to the Board of Directors.

Every employee and every contractor on IBM premises is expected to follow this policy and to report any environmental, health or safety concern to IBM management. Managers are expected to take prompt action.

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*In effect since July 29, 1997; replaces earlier policies dated July 14, 1995, and November 29, 1990.*

## QUALITY

IBM has an overriding worldwide commitment to the quality of the products, solutions and services we provide to our customers. Quality is recognized as a fundamental component of the value customers receive from IBM.

IBM is committed to the goals of achieving total customer satisfaction; delivering superior products, solutions and services; and exceeding customer requirements. Recognizing that the marketplace is the driving force behind everything we do, IBM implements effective business processes that support value creation for our customers and our stakeholders.

IBM leaders are responsible for establishing objectives and using measurements to drive continual improvement in quality and in customer satisfaction. All IBMers are expected to contribute to continual improvement as an integral part of our quality management system.

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*In effect since September 28, 2000.*

## GLOBAL EMPLOYMENT STANDARDS

At IBM, we have always set high standards for the way we conduct business—in areas from corporate and social responsibility to sound business ethics, including compliance with all applicable laws and regulations.

These Conduct Principles apply to all IBM employees. However, they are not meant to describe the full scope of IBM human resource policies or practices. More detailed statements of policies, procedures and practices are contained in documents such as the IBM Business Conduct Guidelines. Employees are required to comply with all IBM policies, procedures and practices at all times and are responsible for consulting their management if they have any questions.

Our goal is to ensure full compliance with these principles by IBM managers and employees. A companion to this document, the IBM Supplier Conduct Principles, governs our relationships with and standards for IBM suppliers.

### ***Forced or Involuntary Labor***

IBM will not use forced or involuntary labor of any type (e.g., forced, bonded, indentured or involuntary prison labor); employment is voluntary.



### ***Child Labor***

IBM will not use child labor. The term “child” refers to any employed person under the age of 16, or under the age for completing compulsory education, or under the minimum age for employment in the country, whichever is greatest. We support the use of legitimate workplace apprenticeship, internship and other similar programs that comply with all laws and regulations applicable to such programs.

### ***Wages and Benefits***

IBM will, at a minimum, comply with all applicable wage and hour laws and regulations, including those relating to minimum wages, overtime hours, piece rates, nonexempt or exemption classification and other elements of compensation, and provide legally mandated benefits.

### ***Working Hours***

IBM will not exceed maximum hours of work prescribed by law and will appropriately compensate overtime. Employees will not be required to work more than 60 hours per week, including overtime, except in extraordinary business circumstances with their consent or where the nature of the position requires such work, as for exempt employees and employees in executive, managerial or professional positions. In countries where the maximum work week is shorter, that standard shall apply. Employees should be allowed at least one day off per seven-day week.

### ***Nondiscrimination and Harassment***

IBM will not discriminate in hiring, promotion, compensation of employees and employment practices on grounds of race, color, religion, age, nationality, social or ethnic origin, sexual orientation, gender, gender identity or expression, marital status, pregnancy, political affiliation, disability or veteran status. IBM will create a work environment free of discrimination or harassment based on race, color, religion, gender, gender identity or expression, sexual orientation, national origin, disability, age or veteran status.

### ***Respect and Dignity***

IBM will treat all employees with respect and dignity and will not use corporal punishment, threats of violence or other forms of physical coercion or harassment.

### ***Freedom of Association***

IBM will respect the legal rights of its employees to join or to refrain from joining worker organizations, including labor organizations or trade unions. IBM complies with legal requirements worldwide regarding employee and

third-party involvement. IBM respects the rights of employees to organize, and makes managers at all levels aware of those rights. The company’s long-standing belief is that the interests of IBM and its employees are best served through a favorable, collaborative work environment with direct communication between employees and management. IBM endeavors to establish such favorable employment conditions, to promote positive relationships between employees and managers, to facilitate employee communications, and to support employee development.

### ***Health and Safety***

IBM will provide its employees with a safe and healthy workplace in compliance with all applicable laws and regulations. Consistent with these obligations, IBM will have and will implement effective programs that encompass things such as life safety, incident investigation, chemical safety, ergonomics, and will provide safe standards of health and safety in any housing and transportation provided for our employees by the company.

### ***Protection of the Environment***

IBM is committed to worldwide leadership in environmental protection. In addition to complying with applicable environmental laws and regulations, every employee must comply with IBM’s environmental policy and the corporate directives and requirements that support that policy. Employees are expected to report any environmental concern or violation of environmental law or IBM requirements to their management. Managers are expected to take prompt action.

### ***Laws, Including Regulations and Other Legal Requirements***

IBM will comply with all applicable laws, regulations and other legal requirements in all locations where it conducts business.

### ***Ethical Dealings***

IBM expects its employees to conduct business in accordance with the highest ethical standards, and maintains Business Conduct Guidelines that employees are required to follow. IBM strictly complies with all laws and regulations on bribery, corruption and prohibited business practices.

### ***Communications***

IBM makes available to all employees open communications channels for suggestions and complaints to management. IBM maintains channels for direct contact with the corporate office for employee complaints, including any form of harassment including sexual harassment.

### ***Monitoring/Record Keeping***

IBM will perform business audits to ensure adherence to our policies, practices and procedures. We will keep records in accordance with local laws and regulations.

### ***Privacy***

IBM is committed to protecting the privacy and confidentiality of information about its employees. IBM recognizes that under the laws of some countries certain information about employees—such as information regarding racial or ethnic origin, political opinions or philosophical beliefs, trade union membership, and health or sex life—should be considered “sensitive.” Whenever possible, such sensitive information should be processed in aggregate or anonymous form so that a particular individual is not identifiable. Where this is not feasible, IBM will process the information only in accordance with applicable local law (and any designated safeguards provided therein); and with employee consent where required; or where necessary for the establishment, exercise or defense of legal claims.

### ***Support for Employees and Community Involvement***

IBM provides numerous programs for employees to encourage and enhance the positive impact of their community involvement. These global programs include: On Demand Community, a suite of online tools and resources to support employee volunteerism; Community Grants, a program that awards long-term volunteer commitments with grants of cash or IBM equipment, and Matching Grants, a program through which IBM matches employee grants to schools and nonprofit organizations.

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*In effect since February 8, 2005.*

## **Internal Audits and Controls**

IBM maintains an effective internal control structure. It consists, in part, of organizational arrangements with clearly defined lines of responsibility and delegation of authority, and comprehensive systems and controls procedures. An important element of the control environment is an ongoing internal audit program.

To maintain the effective administration of internal controls, written policies and procedures are developed and disseminated, appropriate communication channels are provided, and an environment conducive to the effective functioning of controls is fostered. The company believes it is essential to conduct its business affairs in accordance

with the highest ethical standards, as set forth in the IBM Business Conduct Guidelines, which are re-emphasized through internal programs so that they are understood and followed.

IBM’s comprehensive approach to controls provides the Board of Directors, the Audit Committee and IBM management with the tools to measure its environment relating to controls, risk management, and compliance.

To do this, IBM’s internal audit function provides:

- *Independent and objective assessments of IBM’s system of internal controls.*
- *Guidance on managing control risks for IBM stakeholders.*
- *Proactive support to improve control posture.*
- *Assistance in performing self-assessments.*
- *Independent investigations into allegations of fraud and violations of IBM’s Business Conduct Guidelines.*

To accomplish the internal audit mission, a systematic, disciplined approach is used to evaluate and improve controls, risk management, and governance. Audit engagements assess the reliability and integrity of information; compliance with policies, plans, procedures, laws and regulations; safeguarding of assets; the economical and efficient use of resources; and the accomplishment of established objectives.

To confirm compliance, authority is given to the general auditor and the internal audit staff, so that they will:

- *Have unrestricted access to all functions, records, property and personnel.*
- *Allocate internal audit resources, define the engagement plan, and apply the techniques required to accomplish internal audit objectives.*
- *Require line management response to recommendations.*
- *Have full and free access to the Audit Committee.*

The business controls staff, a companion group to the internal audit staff, recommends and facilitates the implementation of overall procedures to address current and emerging control risks, including such areas as:

- *Identification of common control issues and actions.*
- *Adoption of productivity tools and best practices.*
- *Definition and implementation of common measurements.*

In addition to the rigorous, independent audits conducted by the internal audit staff, business controls staffs perform control reviews, which support the required semiannual control assessments of their operations, the results of which are reported to the general auditor.

The general auditor, who has oversight for internal audit and business controls, provides periodic updates to the Audit Committee of the Board of Directors—the members of which are all independent—and reports within IBM to the chief financial officer.

## Personal Business Commitments

In addition to periodic review of and commitment to our Business Conduct Guidelines, every IBMer is also assessed on his or her own job performance and its impact on our company, including applicable areas of corporate responsibility.

A manager's review of an employee's performance is based on the commitments the employee made, in writing, at the beginning of the past year, or more recently, if the job has changed. We call this process “personal business commitments,” or PBCs.

Each employee determines commitments for the year, with his or her manager's approval. (The chairman's commitments are approved—and his performance later reviewed—by the Board of Directors.) At the end of the year, success toward those commitments is reviewed with the manager, and the manager gives an overall rating of the employee's performance.

In 2004, the PBC program was revised to reflect IBM's values more concretely, and employees used these values and IBM's business strategy in determining their commitments for the year. As part of the program changes, first-line managers were given more flexibility than in previous years in determining employee ratings, and managers themselves must now be rated at least above average in managerial skills to receive a top rating overall.

For executives, managers and all other employees, performance against business commitments—including commitments related to issues of corporate responsibility— influences decisions related to promotions and career advancement. Performance assessments on these commitments are a factor in decisions about an employee's performance bonus, merit pay increases and stock options grants, as well.



## RELATIONSHIPS

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*Every company operates* not just inside its market areas, but within the broader world. By opening up new doors, and being able to build substantive relationships with a range of important constituents, companies can play a material role in shaping a responsible, forward-looking context for 21st-century business and technology.

Business has traditionally been viewed as a collection of stand-alone, hierarchical enterprises that interact in a structured and routine way. Now, however, the work is occurring not only within, but also outside traditional corporate boundaries. Enterprises are developing relationships that are becoming vital to their survival. IBM's own business model—once primarily known for the products we made and sold—is now largely defined by the relationships we establish, develop and support.

To that end, IBM is working to synchronize and optimize how we learn from and influence the entire ecosystem of which we are a part. A good example of our approach to such engagement is the Global Innovation Outlook (GIO)—an examination of three areas that affect broad swaths of society and are ripe for innovation: the future of healthcare; the relationship between government and its citizens; and the intersection of work and life. More than 100 leaders from business, academia, government and

other organizations discussed the forces at work on these issues with IBM's top researchers and consultants over the course of 10 meetings in 24 days on three continents.

The findings were released at an event in New York City on November 16, 2004. And while the GIO doesn't attempt to provide all the answers or offer solutions to every issue raised, its real value arises from the questions, implications and even contradictions inherent in its discussions.

This initiative represents something that is broadly characteristic of IBM: a combination of world-class technology leadership, expertise in business and industry, and a concern for our collective future. By developing deep relationships with a broad range of clients, governments, universities and other ecosystem members around the world, we are able to elevate the dialogue around important issues and examine the broad implications for the world.

## Business Partners

As they transform into on demand businesses, today's enterprises and institutions are striving for greater horizontal integration. Building a rich and diverse ecosystem that integrates employees, clients, partners and suppliers is central to this effort and a key source of competitive advantage for IBM. At the heart of this ecosystem is IBM's relationship with its more than 90,000 Business Partners.

Crafting and delivering business and infrastructure solutions requires unprecedented levels of collaboration between IBM and resellers, distributors, consultants, systems integrators and independent software vendors (ISVs). IBM strengthens these important relationships in the following ways:

**PartnerWorld** is a worldwide program that offers sales and marketing tools, skill-building courses and technical support to help create opportunities for IBM Business Partners to grow their businesses and drive increased profit. PartnerWorld is available 24/7 through a comprehensive Web site that contains an array of tools and resources to fully enable IBM Business Partners.

**Business Partner Advisory Councils**—More than 15 different Business Partner Advisory Councils, representing all Business Partner types, meet throughout the year. These councils:

- Review and validate IBM's Global Business Partner and IBM PartnerWorld strategy and direction.
- Gain Business Partner input on specific requirements from IBM to help grow their businesses.
- Solicit Business Partner feedback on ways to simplify and improve PartnerWorld benefits, resources and tools.
- Implement changes to and funding for the PartnerWorld program as a result of direct feedback from Partners.

IBM's **PartnerWorld Conference** gathers more than 3,500 Business Partners annually to discuss IBM's Business Partner strategy and direction and to solicit input in one-on-one meetings with IBM executives. During the 2004 conference, a total of 4,140 Business Partner meetings were held to help IBM continue to build this key part of its ecosystem.

**PartnerJam**—Leveraging collaborative "Jam" technology developed by IBM, this five-day, interactive Web event joined the worldwide IBM Business Partner community with key IBM executives in discussions on strategic themes, including:

- Impact of IBM programs and incentives on market segment share and profitability
- Channel expansion strategies
- Competition in the SMB marketplace/IBM Express Portfolio for SMB
- Reduction of channel contention
- Improvements to ease doing business with IBM

More than 1,600 individuals visited the Jam application during its duration, and more than 130 Business Partner firms participated.

**Business Partner participation in the development of PartnerWorld offerings**—As IBM develops new offerings, such as sales learning modules, Business Partners participate to ensure the offerings meet their needs and deliver high value. Business Partner "focus groups" provide input on how IBM can improve current offerings.

**Annual Business Partner surveys**—In addition to conducting the standard IBM Business Partner survey, we also canvass our partners to receive input on the awareness, usage and value of PartnerWorld offerings. The input received is used to determine how to best invest our Business Partner funds. This allows IBM to eliminate offerings that have low value and usage and to invest in areas that truly affect the work Business Partners do.

**PartnerWorld Contact Services** provide a single point of contact via a toll-free number in each geography for our Business Partners to call with questions. Feedback is utilized to improve the Web experience, to post Frequently Asked Questions, and to improve PartnerWorld offerings.

**Partnership Executives**—Key Business Partner firms have an IBM executive assigned to them to provide insight and guidance to ensure that both the Business Partner and IBM meet their objectives, resolve issues, and share feedback on IBM's channel strategy.

**PartnerWorld Industry Networks** offer a rich set of industry-tailored benefits to all ISV members of PartnerWorld who want to build their vertical market capabilities and attract potential customers in the markets they serve. Benefits are available at each step along the way in the business cycle to accelerate ISV success—from business planning and applications building, to marketing and selling on demand solutions based on IBM technology.

**ISV Advantage Initiative**—ISV Advantage Initiative for Small and Medium Businesses is designed to drive the success of ISVs who serve the midmarket; ISV Advantage for Industries extends this to include vertically aligned ISVs focused on delivering industry tailored solutions to enterprise customers. ISVs are invited by the IBM sales and marketing teams based on their ability to influence key markets and their willingness to lead with IBM middleware and hardware. In return for a two-year commitment, IBM offers benefits that include:

- Linkage of ISVs into IBM's industry-focused solutions marketing and sales organizations.
- Tools to customize joint marketing plans that may be cofunded.
- An agreement that maximizes mutual benefit and results.
- Priority access to IBM's leading technical infrastructure, resources and support.

**developerWorks** is IBM's online technical resource for developers, offering a range of tools, code and education to help them take full advantage of the IBM Software Development Platform. By providing relevant and accurate technical information, developerWorks presents valuable development choices for building and deploying applications across heterogeneous systems. developerWorks covers technical information on DB2, eServer, Lotus, Rational, Tivoli and WebSphere, as well as on open standards technology, including Java, Linux, XML, Web services, wireless, and emerging technologies.

## Clients

Technology is a major driver of global economic growth and productivity. Through its client relationships, IBM strengthens industries by providing the latest processes and technologies in ways that foster higher levels of business performance. These relationships, in turn, enhance the viability of the IT industry and secure its continuing role in global development. IBM nurtures customer involvement in several ways:

**Business Leadership Forums** are gatherings of chief executives, government leaders, analysts and other industry experts that explore the opportunities and challenges posed by globalization, ubiquitous integration, pervasive technologies and other changes in the world economy. Speakers and panelists address long-term trends as well as innovative approaches under way at leading-edge enterprises.

**Client Executive Conferences** bring together IBM senior leaders with customer executives to discuss the integration of business and technology in their enterprises. These annual conferences, held in three geographic regions worldwide, focus on the application of IBM services and products to the competitive demands clients face across a range of industries.

**IBM User Groups**—COMMON (midrange servers) and SHARE (mainframe servers) are customer-driven organizations that bring together the all-important influencers and recommenders from more than 4,000 IBM client companies, educational institutions and government agencies. They meet semiannually with IBM developers and marketers to provide technical feedback and recommendations for product and service improvements. (A notable milestone for such a “young” industry as ours: In 2005, SHARE will mark its 50th anniversary.)

**IBM Board of Advisors** comprises a select group of clients who are engaged with IBM in providing feedback on IBM's transformation to an on demand enterprise. Representing major companies and organizations from around the world, members of the board contribute firsthand knowledge of the transformation of their own business models and the IT infrastructures that enable them. This knowledge enables IBM to continually refine its on demand strategy and the metrics for measuring its success.

IBM conducts a wide range of client feedback surveys and programs:

- **IBM Customer Experience Survey** provides a view of our clients' satisfaction with their IBM transactions. This key survey provides individual client feedback as well as aggregate insights for IBM's sales teams.
- **Customer Executive Relationship Survey** measures client satisfaction with large services contracts and provides a critical channel for communication between our services management team and the client. Closing the feedback loops on complaints is key to maintaining a good client relationship.
- **IBM Post-Complaint Satisfaction Survey** measures the total client experience with the complaint handling process.
- **Set/Met** are calls IBM sales teams make with clients to understand their expectations when they do business with IBM and to assess how well we are meeting those expectations.
- **Pervasive Issues Teams** are formed to handle specific issues not resolved by the normal business process. Drawing upon survey and other information, these teams look for root causes of client issues and then recommend and implement actions to address those issues and to help prevent their recurrence.

**Partner Executive** appointments foster relationships between IBM executives and senior executives at our largest clients to improve customer satisfaction and to share thought leadership. Appointments are made for the duration of the IBM executive's career and bring value to the customer relationship by:

- Making it easier for the client to do business with IBM through the use of peer contacts.
- Resolving customer satisfaction issues before they become customer complaints.
- Providing insight into IBM's strategies and thought leadership on industry trends.
- Seeking opportunities for high-level strategic partnerships between the client and IBM.
- Providing a point of continuity during client executive and line management changes.
- Offering a long-term, personal relationship at a senior level within IBM that the CEO and senior management board members can rely on.

**Integrated Product Development** at IBM is a management system designed to optimize the development and delivery of successful products and offerings, since client feedback and involvement helps new products to address client needs. In close collaboration with IBM's marketing department, customer requirements, wants and needs are collected and analyzed using market research, customer satisfaction surveys, Web surveys, focus groups and executive contacts. These, in turn, drive cross-functional product development activity and decision making. Understanding clients' interaction and experience with IBM products and offerings is critically important to achieve high levels of client satisfaction. IBM directly engages clients in the design and engineering of products to foster successful end-user experiences.

## Suppliers

IBM Global Procurement (part of the Integrated Supply Chain organization) acquires goods and services for IBM and its clients. This is done with flexibility to sense and react to changing market dynamics. With few exceptions, this organization is the only group authorized to commit IBM funds to external suppliers.

Procurement fulfills its mission by using Global Commodity Councils to strategically source goods and services through a network of international, regional and emerging suppliers for IBM's varied businesses. Procurement is conducted in an environment of pervasive e-procurement across all steps of the acquisition process—from initial market segment intelligence and strategic sourcing, to tactical order placement, invoicing and electronic payment.

**Supplier interaction**—Procurement is responsible for enhancing IBM's competitiveness by engaging suppliers to provide competitive advantage in cost, technology, innovation, speed to market, quality, and supply assurance. This responsibility includes activities such as supplier selection, negotiation of price, terms and conditions, contract implementation and ongoing supplier management.

**Supply chain social responsibility**—Core to IBM's Supply Chain Social Responsibility program is the establishment of a set of supplier conduct principles, which outlines the requirements for doing business with IBM. Procurement works with its suppliers, as appropriate, to help them achieve compliance with these principles. It is expected that our suppliers will apply these principles not only in their own companies, but to their extended sources of supply engaged in the production of goods and services for IBM. These principles are embedded in our supplier selection process, and we will actively monitor suppliers' performance against them to promote sound business practices across IBM's extended supply chain. IBM is using the services of an independent third party to review supplier facilities and to report to IBM on suppliers' compliance with these principles.

**Environmental affairs**—Suppliers of materials, parts and products for IBM hardware applications provide information to verify their compliance with IBM's environmental requirements. In addition, a subset of suppliers—such as hazardous waste management and product disposal vendors—undergo additional environmental evaluations by IBM. All suppliers of goods and services to IBM are expected to meet the environmental requirements of our Supplier Conduct Principles. IBM also works with its suppliers to develop mutually beneficial designs and processes to enhance environmental performance, such as in improvements to packaging material and design, and in the substitution of powder-coatings for liquid-based paints for the decorative metal finishing of IBM products.

**Supplier diversity**—IBM is committed to increasing diversity in its supply chain. The Supplier Diversity Program fulfills a corporate policy through our commitment to expand relationships with certified minority-owned, women-owned, persons-with-disabilities and gay-and-lesbian firms. Each Global Commodity Council has a diversity advocate assigned it by the corporate supplier diversity manager.

**e-procurement**—IBM's e-procurement processes are an integral part of our optimized end-to-end supply chain. Global Procurement employs a suite of e-business applications to streamline the procurement process by sharing supply chain information and by fostering electronic commerce and communication. Efficiencies realized by this process help IBM and its suppliers to reduce overall costs of communication and administrative workload.

IBM defines e-procurement as:

- The acquisition of goods and services using the Internet and new technologies to facilitate a seamless, end-to-end stream of strategic procurement activities by connecting buyers with suppliers.
- The inclusion of tools and business intelligence systems that enable improved responsiveness and analysis within the supply chain.
- The linkages between suppliers and internal systems across the supply chain.

**Supplier satisfaction surveys**—Surveys are distributed to a statistical sample of suppliers to gain feedback regarding our processes and activities as a supply chain customer.

**Audits**—Where applicable, buyers and engineers conduct audits of suppliers, including (but not limited to) environmental compliance; process qualification and certification; quality assurance and control; and supplier manufacturing readiness reviews.

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*For more information on these areas, read the Supply Chain section of this report: [www.ibm.com/ibm/responsibility/company/supplychain](http://www.ibm.com/ibm/responsibility/company/supplychain).*

## Investors

A share of IBM stock is among the world's most widely held equities. Our stock has traded on the New York Stock Exchange for nearly a century.

The annual meeting of stockholders is usually held the last Tuesday in April. IBM regularly holds its meetings in a different city each year so that investors from different parts of the country may have an opportunity to attend. In the past five years, those cities have been:

- 2004: Providence, Rhode Island
- 2003: Kansas City, Missouri
- 2002: Louisville, Kentucky
- 2001: Savannah, Georgia
- 2000: Cleveland, Ohio

IBM also maintains a Web site for investors as part of [ibm.com](http://ibm.com): [www.ibm.com/investor](http://www.ibm.com/investor).

IBM's interface with institutional investors is coordinated through IBM Investor Relations. Interaction takes place using multiple venues and media; however, the four cornerstone meetings are quarterly earnings Webcasts, which can be accessed via our investors Web site. Additionally, IBM hosts multiple financial analysts meetings and participates in conferences hosted by various financial firms.



These meetings provide an opportunity for IBM's investors to learn more about IBM and to engage in a dialogue regarding questions they may have. In addition, these meetings often provide feedback from investors that can help IBM gain a better understanding of investor viewpoints and concerns.

We also have ongoing dialogue with many socially conscious investment groups on a number of environmental and social issues, which is valuable to IBM. It allows us to share ideas, gain perspectives, and obtain feedback about our programs, activities and performance.

## Employees

As a flagship for the Information Age, IBM has long understood that it is the skill, knowledge and experience of IBMers—their expertise, in other words—that differentiates this company most from others. Our employees understand that, too, and their passion for the company and its future is one of the distinguishing traits of being an IBMer.

There are many ways—some dating back many decades, others as recent as the latest collaboration technology will allow—that IBM management engages with employees. Among them:

**Online Jams**—IBM has been using a form of online collaboration that enables all its employees to engage in large-scale, enterprisewide discussions and decision making. Called “jams,” these events have emerged as a key element in IBM's values-based management system. Recent jams have included ValuesJam in 2003, where IBMers across the company collectively discussed, debated and defined their core values. WorldJam, a global brainstorm of the specific ways the company should be a living demonstration of its values, followed in 2004.

**Internal Appeals**—IBM has a number of avenues by which employees can raise concerns on a confidential basis—some allow the employee to be anonymous, if needed—and have grievances or disagreements addressed. These programs may include interviews with executives and IBM's internal appeals programs.

**Global Pulse Survey**—IBM's bimonthly Global Pulse Survey measures overall employee satisfaction and specific areas of workplace climate across a random sample of the worldwide workforce. The survey results identify areas of strengths as well as those areas needing improvement.

This information helps IBM's management better understand employee concerns and take the action necessary to be a great employer.

**Workforce Research**—IBM's Workforce Research Team develops and implements the strategic direction for research of people in IBM to better understand emerging employee issues and future trends. Topics include employee satisfaction, organizational effectiveness and the state of organizational change. Workforce Research also partners with external research organizations to benchmark information on people from companies within and outside the IT industry.

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*For more information on these and other areas, read the Our People section of this report: [www.ibm.com/ibm/responsibility/people](http://www.ibm.com/ibm/responsibility/people).*

## Retirees

### **On Demand Community**

Retiree participation in On Demand Community (ODC), IBM's leading-edge employee volunteer mobilization program, is an essential component of the program's vision. IBM retirees are valuable, skilled contributors to their communities. Their expertise and experience is sought out around the world as they volunteer to help not-for-profits and schools. On Demand Community provides a rich set of resources—including software, solutions, discounts and grants—to assist them in making a greater impact with their volunteerism.

Community grants are accessible for active members of ODC and are heavily utilized by our retirees. They use the awarded technology grants and discounts as a key component of their support in their local communities.

Since providing access to ODC for retirees in late June 2004, more than 4,000 retirees have registered on the site worldwide. In Ireland and Italy, more than 10 percent of IBM retirees have registered with ODC.

Sixty launch events were held in cities around the world to welcome retirees to the On Demand Community. Thousands of retirees participated in these events that networked them with their peers and current IBMers, bringing them back to IBM and making them a key part of our community team.

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*For more information about On Demand Community, read the Contributing to Communities section of this report: [www.ibm.com/ibm/responsibility/world/communities](http://www.ibm.com/ibm/responsibility/world/communities).*



## Benefits

IBM continues to provide subsidized support for retiree health care, one of a small, decreasing number of U.S. employers who do so.

Since the early 1990s, IBM has contributed a fixed, average amount of money toward the cost of retiree health coverage each year. (Certain groups do not receive subsidized benefits. The IBM subsidy is delivered differently for more recent retirees.) As of 2004, the average annual subsidy for non-Medicare-eligible retirees was \$7,000.

Depending on their choice of coverage, most participants in IBM retiree medical benefits plans in the United States are also eligible to participate in the IBM Managed Pharmacy Program, the IBM Managed Mental Health Care Program, and the Care Advantage Program, which provides support for those with chronic illness or other complex medical situations. These are the same programs available to participating active employees in the United States.

IBM's contribution to retiree well-being goes beyond financial support. During health benefits enrollment, IBM provides retirees with access to peer counseling—a dedicated telephone line staffed by IBM retirees trained on IBM's retiree benefit program and current health care issues. Decision-support tools are also available through an online benefits information center. And at any time during the year, retirees can visit the online Health Management Center, which features comprehensive health care information provided by WebMD, along with a host of tools to help assess and understand personal health risks.

IBM retirees may also participate in the Employee Assistance Program at no charge, regardless of whether or not they are enrolled in an IBM medical plan option.

Retirees receive the same discounts on products and services as do active employees, and the children of retirees are eligible to receive scholarships of \$2,000 to \$8,000 in the Thomas J. Watson Memorial Scholarship Program, just as the children of active employees are eligible to do.

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*The above descriptions apply to U.S. IBM retirees. Benefits available to IBM retirees elsewhere, participation costs or scope of the programs, and eligibility requirements may differ from the U.S. programs.*

*For more information on many of these benefits programs, read the Employee Well-being section of this report: [www.ibm.com/ibm/responsibility/people/wellbeing](http://www.ibm.com/ibm/responsibility/people/wellbeing). Additional information can be found in the Compensation and Benefits section of this report: [www.ibm.com/ibm/responsibility/people/compben](http://www.ibm.com/ibm/responsibility/people/compben).*

## Communities

IBM's commitment to communities began with the founding of the company by Thomas J. Watson, Sr., in 1914. His vision for the corporation explicitly staked IBM's reputation not only on technical leadership, but also on community leadership. He knew that the future of IBM was inextricably linked to the communities in which it did business; no company could be successful if it was part of an unsuccessful community.

IBM's relationships with community and nongovernmental organizations are long-term partnerships that grow out of a foundational belief in two-way dialogue and mutual learning. Our worldwide Corporate Community Relations organization, with employees in more than 20 countries around the world, manages our global philanthropic programs and serves as the primary point of contact with community and nongovernmental organizations. This includes, in the area of corporate citizenship, IBM's leadership position in founding the Global Leadership Network for Corporate Citizenship, as well as our memberships at the Center for Corporate Citizenship at Boston College, Business for Social Responsibility, the Conference Board, CSR Europe, the European Academy of Business in Society, and the Center to Encourage Corporate Philanthropy, among others. Our ongoing dialogue with these institutions, as well as with other community and nongovernmental organizations, provides valuable feedback about and input into our policies and programs, giving us insight into the evolving needs in our communities and the role that IBM can play in meeting these needs.

IBM's innovative, consultative partnership approach to our relationships with schools, community and nongovernmental organizations is exemplified in our philanthropic programs. We form multiyear relationships with schools and community partners who serve as equals in the development of software and services to support schools and communities in need. We rely on organizations like SeniorNet, MentorNet, the Tomás Rivera Policy Institute, the New York Hall of Science, and the Egyptian Museum—as well as on school districts around the world—to beta-test new software and services in order to better serve the needs of these organizations' constituencies. Through these unique partnerships we develop cutting-edge software and solutions that bring together the best technology and know-how our company has to offer, with the expertise, insight and on-the-ground experience of community organizations.

IBM also has more than 350 relationships with people in universities and external organizations who offer recruiting and retention opportunities for IBM's technology-outreach interests and affinity-based groups. Every year, for example, to help close the "Digital Divide," IBM and Career Communications Group sponsor several programs such as Black Family Technology Awareness Week in February, and La Familia Technology Awareness Week and Native American Family Technology Journey in the fall. IBM also partners with Women in Technology every summer to host EXITE (Exploring Interest in Technology and Engineering) Camps for middle-school girls.

We also have strengthened existing partnerships with various organizations for a full pipeline of technical talent that is rich in cultural diversity such as the Society of Hispanic Professional Engineers and the National Society of Black Engineers. And to better align the needs of our constituency groups at IBM, we also work closely with many affinity organizations, including Leadership Education for Asian Pacifics, Human Rights Campaign Foundation, and Catalyst. Most recently, IBM partnered with Harvard Business School on a study on diversity as strategy, which is being used in the Harvard MBA program curriculum.

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*For more information on these areas, read the following sections of this report: Contributing to Communities — [www.ibm.com/ibm/responsibility/world/communities](http://www.ibm.com/ibm/responsibility/world/communities) Workforce Diversity — [www.ibm.com/ibm/responsibility/people/diversity](http://www.ibm.com/ibm/responsibility/people/diversity)*

## Governments

Governments today face a range of challenges as they endeavor to represent and serve their citizens while they address the unprecedented acceleration of global change against a backdrop of financial constraints and increased pressure for near-term results.

Deeper integration of their systems and processes is one way governments can cut costs, transform the way they work, and effectively provide the services that citizens and businesses increasingly expect. As a leader in open source computing, IBM is enabling governments to achieve these goals. Through its relationships with governments, IBM also offers them its knowledge and expertise on a range of issues important to the future of the company, its clients and the world.

### **Open Computing**

IBM is involved with many national governments, with their agencies, or with regional governments within a country

in implementing open source and open standards initiatives to further economic development, expanded access, and increased integration. For example:

- In Spain, a general-purpose supercomputer — to be located at the university — will be based on IBM's 64-bit POWER technology running Linux. When fully realized, this new supercomputer will be used by the public sector, research centers and industries in Spain and in other nations.
- In 2003, Brazil's Ministry of Science and Technology and IBM signed a letter of intent to jointly expand the use of Linux and open standards throughout the country. IBM Brazil has launched two technical centers fully dedicated to the development of Linux technology.
- In Chile, IBM and the Undersecretary of Telecommunications have signed an agreement with the objective to train and disseminate IT knowledge — especially in the area of Linux and open standard software — among public sector employees.
- Germany's Ministry of the Interior and IBM Germany have agreed on a comprehensive cooperation contract to support the Federal Republic of Germany's move to Linux and open software.

### **Center for the Business of Government**

The IBM Center for the Business of Government was created in 1998 and is dedicated to stimulating research and facilitating discussion of new approaches to improving the effectiveness of government at all levels in the United States and across the world. Since its creation, the Center has awarded nearly 200 research stipends to leading public management researchers in the academic and non-profit communities.

### **Client Base**

In addition, IBM counts governments and public sector agencies in 58 countries, representing 75 percent of the world's population, among its clients. To enable their success, IBM has a responsibility to ensure that our work makes them better as governments and helps them fulfill their roles of serving and representing their citizens.

### **Policy Advocacy**

IBM is often called to advise on developments and issues related to business, technology and the operations of government itself. In its relationships with governments, IBM seeks to contribute information and perspectives to the public dialogue across a range of areas that includes open standards, high-performance computing, export controls, privacy, digital rights management, homeland security, compensation, retirement medical security, research and development, trade, patents, taxes and finance.

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*For more information on these areas, read the Governments and Public Policy section of this report: [www.ibm.com/ibm/responsibility/world/government](http://www.ibm.com/ibm/responsibility/world/government).*

## Universities

IBM has always had close relationships with institutions of higher learning, ever since our first computer, the Mark I, was developed with Harvard University and presented to the school in 1944.

That was when everything IBM sold could be considered “hardware.” But services today account for more than half the U.S. economy and more than half of our own business. Sixty years after the debut of the Mark I, IBM Research and Business Consulting Services brought together academic participants from the fields of business, operations research, and technology to examine the changing business environment and to explore the case for the development of “services science,” a new academic discipline capable of defining the skills needed by the 21st century workforce.

IBM today is involved with many aspects of higher education, seeking to better the education of students and the work of faculty. We also seek to improve our own company, as well as our services and products, by gaining access to the best thinking in academe.

In addition to our traditional (and nontraditional) programs designed to recruit the top graduates in the business and technical fields, here are just some of the other ways we engage with representatives of higher education:

- IBM holds a seat on Harvard Business School Publishing’s Executive Council, and we are a founding member of Stanford University’s Media-X Consortium to fund interdisciplinary research on learning initiatives.
- In January 2005, IBM cochaired the Sloan Foundation’s conference for their university and college online learning members to step into the future of learning and create new paradigms for the ways business and academe can serve and support each other.
- We frequently partner with faculty and students on special joint development initiatives to leverage academic thought leadership in specific fields of study related to our business and its operations.
- We frequently sponsor graduate student projects and internships, like the Extreme Blue™ internship program — IBM’s incubator for talent, technology, and business innovation — and we contribute to and author textbooks and IBM case studies that are used in business and computer science schools as instructional content.
- The IBM Academic Initiative and the IBM Scholars Program are designed to provide faculty and researchers at higher education institutions worldwide with a wealth of academic and research offerings, resources and benefits. The IBM Academic Initiative provides a set of offerings that help to build IT skills with faculty and students to effectively

establish open standards, open source and IBM technologies in higher education. The Scholars Program delivers a wide breadth of IBM software, hardware technologies, associated learning materials and curriculum, discounts on events, technical support, and community resources at [www.ibm.com/university](http://www.ibm.com/university).

- The Shared University Research Program awards equipment to universities and research institutes to support innovation through research collaborations.
- The Faculty Awards Program recognizes faculty with cash awards in support of exceptional research and skill development.
- The Ph.D. Fellowship Program supports exceptional doctoral students who are undertaking research in areas being pursued by researchers in IBM’s research and development labs.
- IBMers themselves support higher education in many ways. This includes guest presentations, frequently unpaid, at colleges and universities, while other IBMers also serve as adjunct faculty at colleges and universities. IBMers also made personal cash contributions to 1,459 colleges and universities in 2003, which were matched by IBM with equipment or cash.
- Through special learning programs, IBM spends millions of dollars each year for thousands of employees to pursue graduate and undergraduate degrees.
- IBM’s Technical Academic Career Program seeks to help eligible IBMers pursue a second career as faculty members in the areas of engineering, mathematics, physics, computer science or chemistry upon their retirement from IBM. The program includes supplemental payments for two years, in addition to any applicable retirement income, and may assist with relocation expenses, if necessary.
- In November 2004, IBM released its first Global Innovation Outlook, a study that relied on the insights of more than 200 thought leaders, including many university professors and administrators, to forecast the major changes shaping business, technology and society in the coming decade.

IBM also plays an active role in organizations that support diversity in higher education. Examples include:

- Women in Engineering Programs & Advocates Network (WEPAN), Society for Women in Engineering (SWE), MentorNet advisory board, Institute of Women and Technology (IWT) and its Grace Hopper Conference.
- Women of Color in Technology Awards Conference.
- Committee of Women in Science & Engineering (National Academy of Engineering & Science).
- BEST blue ribbon panel on Bettering Engineering and Science Talent in higher education.
- National Society of Black Engineers (NSBE) initiatives.
- IBM’s Women in Technology and Multicultural People in Technology initiatives.

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*For more information on many of these areas, read the Contributing to Communities section of this report:*  
[www.ibm.com/ibm/responsibility/world/communities](http://www.ibm.com/ibm/responsibility/world/communities).

## ACCOUNTABILITY AND SUSTAINABILITY

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*While IBM employs many people whose jobs are overtly associated with issues of accountability, environmental protection, diversity, employee well-being, and community engagement, they do not perform their jobs in isolation from the work of other IBMers.*

Each one of us, from the newest hire to the Chairman of the Board, is responsible for IBM's actions on these issues. Corporate responsibility is literally that: corporate. It collectively represents the personal responsibility each IBMer accepts in doing his or her job.

This has been true at IBM since its beginning. From the earliest days, our company staked out a territory few corporations were willing to approach in that time, the idea of the corporation as partner, citizen, neighbor and participant in the world's affairs. To be, in other words, a leader among institutions and enterprises.

It's this commitment to leadership that has driven our groundbreaking achievements in hiring and promoting women, minorities and the disabled; in progressive policies in benefits and compensation; in world-class community partnerships that are making a real difference; and in innovations in employee health and environmental protection. And it's this same commitment that has made IBM a trusted partner for our customers, a reliable long-term investment, and the 20th century's fulcrum for conjoining business and information technology.

Nearly a century later, these goals are as urgent for us as ever. We recognize that corporate responsibility is an evolving area of focus for many corporations, and discussions will and should continue about the best ways to obtain the most benefit for people and the planet. We have our own ideas — among them, that our responsibilities

do not exist in a vacuum, but must be part of a broad ecosystem of companies, individuals, governments and other enterprises — and we have been deeply involved in many of those discussions for years. We welcome the chance to widen the circle and engage with a growing community of varying interests.

And our commitment to improving our company in these and other areas will continue. As IBMers, we each simply consider that part of our job.

### Corporate Citizenship

A purely economic view of a corporation generally describes an organization competing to win monetarily in a zero-sum game. But while we certainly relish the chance to win in the marketplace — and exult when we do — IBMers' view of their work has never been limited to this one perspective.

In our view, for an organization citizenship implies a relationship with a wider group of equal participants. This relationship can be described in financial, social — even ecological — terms. It is, in other words, a full relationship. Maturity in a corporation requires that this holistic relationship with other enterprises and people not only be acknowledged, but be effectively managed.

## CORPORATE CITIZENSHIP COUNCIL

IBM's Corporate Citizenship Council is made up of representatives of major functions within our Corporate division. It is tasked with ensuring that corporate citizenship is integrated into all aspects of our business for every employee and department. This includes understanding the needs and interests of our clients, employees, investors and communities; assessing IBM's social, environmental and business practices to ensure they are in alignment with IBM's values; and integrating the company's corporate citizenship objectives throughout the business.

As a group, the council is charged with ensuring that IBM's business conduct meets the highest standards and with communicating company performance in a transparent manner to interested parties—including the publication and update of IBM's corporate responsibility reporting. Representatives of the council report to IBM Chairman and CEO Sam Palmisano on the company's corporate citizenship performance.

The Executive Committee of the Corporate Citizenship Council includes these IBM executives from the following departments and functions:

- *Wayne Balta, Corporate Environmental Affairs and Product Safety*
- *Chris Caine, Governmental Programs*
- *Rich Calo, Workforce Relations*
- *Richard Carroll, IBM Assistant Controller*
- *Ted Childs, Global Workforce Diversity*
- *Theo Fletcher, Integrated Supply Chain*
- *Stanley Litow, Corporate Community Relations*
- *Patricia Murphy, Investor Relations*
- *Harriet Pearson, Corporate Affairs*

## Global Leadership Network

In 2003, IBM assembled a group of the world's top performing companies to take stock of management of corporate responsibility practice and its integration into core business processes. Ten of these companies have come together to create the Global Leadership Network for Corporate Citizenship (GLN). This international network focuses on the crucial question of what constitutes world-class performance in corporate citizenship.

Collectively, these leading companies—IBM, Cemex, General Electric, FedEx, Cargill, 3M, Diageo, Omron, Manpower and General Motors—represent more than \$544 billion in annual revenues, employ some 1.4 million people and have multinational operations that span the globe.

The willingness on the part of these companies to share their experiences will have a significant impact on other companies, especially those with fewer resources or those who have been late to recognize the importance of integrating corporate responsibility measures into their core business strategy. These leading companies are identifying elements of their corporate responsibility programs that not only improve but drive business performance. Capturing and harnessing this valuable knowledge is one of the key objectives of this unique business learning network.

IBM founded this network of like-minded global companies, which is chaired by IBM Vice President Stan Litow, because, in our view, higher-quality corporate citizenship and responsible social engagement is an important part of the long-term economic value of any company and must be managed with the same seriousness of purpose as any other core element of the business. By bringing together some of the most well-known, well-respected global corporations to study these questions, we believe we can, as a group, lead by example and have a profound impact on the way all major corporations think about and manage corporate citizenship.

The research is being conducted by the Center for Corporate Citizenship at Boston College and AccountAbility in the United Kingdom, with support from the Ford Foundation and each participating company.

This three-year research project is focusing on how the participating companies:

- **Align corporate citizenship** into the core business strategy by defining what activities are material to the company.
- **Respond to and learn from societal expectations** in a manner that creates value for the business and stakeholders.
- **Align corporate citizenship values** with operational excellence to ensure that ethics and the interests of good corporate governance are maintained.
- **Create opportunities for leadership** that allow companies to influence the best practices of others.



# Global Reporting Initiative Index

GRI SECTION	DESCRIPTION	RELATED INFORMATION FROM IBM
<b>VISION AND STRATEGY</b>		
1.1	Statement of the organization's sustainability vision and strategy regarding its contribution to sustainable development	Accountability and Sustainability*
1.2	Statement from the CEO (or equivalent senior manager) describing key elements of the report	Chairman's Letter*
<b>PROFILE</b>		
2.1	Name of reporting organization	International Business Machines Corporation
2.2	Major products and services	Corporate Profile: Business Model* Other information available online**
2.3	Operational structure of the organization	Other information available online**
2.4	Description of major divisions, operating companies, subsidiaries and joint ventures	Other information available online**
2.5	Countries in which the organization's operations are located	Other information available online**
2.6	Nature of ownership; legal form	Other information available online**
2.7	Nature of markets served	Other information available online**
2.8	Scale of the reporting organization	Other information available online**
2.9	List of stakeholders	Relationships*
<b>REPORT SCOPE</b>		
2.10	Contact person(s) for the report, including e-mail and Web addresses	Other information available online**
2.11	Reporting period (e.g. fiscal /calendar year) for information provided	All full-year data on the IBM Corporate Responsibility site is for calendar 2003, unless 2004 is available.
2.12	Date of most recent previous report (if any)	Last content update: April 13, 2005
2.13	Boundaries of report (countries/regions, products/services, divisions/facilities/joint ventures/subsidiaries) and any specific limitations on the scope	IBM's Corporate Responsibility site is intended to give insight into IBM's corporate responsibility strategy and performance as related to the company and its wholly owned subsidiaries. More detailed information can be found in some areas at About IBM ( <a href="http://www.ibm.com/ibm">www.ibm.com/ibm</a> ) and in the publication <i>Understanding Our Company: An IBM Prospectus</i> , and in the IBM Annual Report for 2004 ( <a href="http://www.ibm.com/annualreport/2004/">www.ibm.com/annualreport/2004/</a> )
2.14	Significant changes in size, structure, ownership, or products/services that have occurred since the previous report	Other information available online**
2.15	Basis for reporting on joint ventures, partially owned subsidiaries, leased facilities, outsourced operations and other situations that can significantly affect comparability from period to period and/or between reporting organizations	
2.16	Explanation of the nature and effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement	No restatements at this time

\* IBM Corporate Responsibility site: [www.ibm.com/ibm/responsibility](http://www.ibm.com/ibm/responsibility)  
 \*\* GRI Index: [www.ibm.com/ibm/responsibility/sustainability/gri-index.shtml](http://www.ibm.com/ibm/responsibility/sustainability/gri-index.shtml)



GRI SECTION	DESCRIPTION	RELATED INFORMATION FROM IBM
<b>REPORT PROFILE</b>		
2.17	Decisions not to apply GRI principles or protocols in the preparation of the report	The GRI was one of a series of frameworks used in the preparation of this report.
2.18	Criteria/definitions used in any accounting for economic, environmental, and social costs and benefits	Unless otherwise noted, dollar amounts represent U.S. dollars Measurements are metric, unless otherwise noted.
2.19	Significant changes from previous years in the measurement methods applied to key economic, environmental and social information	No significant changes
2.2	Policies and internal practices to enhance and provide assurance about the accuracy, completeness, and reliability that can be placed on the sustainability report	Management System*
2.21	Policy and current practice with regard to providing independent assurance for the report	IBM has not engaged an external party to provide independent assurance of the Corporate Responsibility report
2.22	Means by which report users can obtain additional information and reports about economic, environmental and social aspects of the organization's activities, including facility-specific information (if available)	Other information available online**
<b>GOVERNANCE STRUCTURE AND MANAGEMENT SYSTEMS</b>		
<b>STRUCTURE AND GOVERNANCE</b>		
3.1	Governance structure of the organization, including major committees under the board of directors that are responsible for setting strategy and for oversight of the organization	Corporate Governance* Other information available online**
3.2	Percentage of the board of directors that are independent, non-executive directors	Corporate Governance* Other information available online**
3.3	Process for determining the expertise board members needed to guide the strategic direction of the organization, including with regard to environmental and social risks and opportunities	Corporate Governance: Leadership*
3.4	Board-level processes for overseeing the organization's identification and management of economic, environmental, and social risks and opportunities	Corporate Governance: Leadership*
3.5	Linkage between executive compensation and achievement of the organization's financial and non-financial goals	Corporate Governance: Leadership* Compensation and Benefits: Executive Compensation* Other information available online**
3.6	Organizational structure and key individuals responsible for oversight, implementation, and audit of economic, environmental, social and related policies	Accountability and Sustainability: Corporate Citizenship*
3.7	Mission and values statements, internally developed codes of conduct or principles, and policies relevant to economic, environmental and social performance and the status of implementation	Corporate Profile: Values* Accountability and Sustainability* Management System: Business Conduct Guidelines*
3.8	Mechanisms for shareholders to provide recommendations or direction to the board of directors	Other information available online**
<b>STAKEHOLDER ENGAGEMENT</b>		
3.9	Basis for identification and selection of major stakeholders	Relationships*
3.10	Approaches to stakeholder consultation reported in terms of frequency of consultations by type and by stakeholder group	Relationships*
3.11	Type of information generated by stakeholder consultations	Relationships*
3.12	Use of information resulting from stakeholder engagements	Relationships*

\* IBM Corporate Responsibility site: [www.ibm.com/ibm/responsibility](http://www.ibm.com/ibm/responsibility)  
\*\* GRI Index: [www.ibm.com/ibm/responsibility/sustainability/gri-index.shtml](http://www.ibm.com/ibm/responsibility/sustainability/gri-index.shtml)

GRI SECTION	DESCRIPTION	RELATED INFORMATION FROM IBM
<b>OVERARCHING POLICIES AND MANAGEMENT SYSTEMS</b>		
3.13	Explanation of whether and how the precautionary approach or principle is addressed by the organization	Accountability and Sustainability: Global Leadership Network*
3.14	Externally developed, voluntary economic, environmental and social charters, sets of principles, or other initiatives to which the organization subscribes or which it endorses	
3.15	Principle memberships in industry and business associations, as well as national/international advocacy organizations	Accountability and Sustainability: Global Leadership Network* Security and Privacy: Relationships* Other information available online**
3.16	Policies and/or systems for managing upstream and downstream impacts, including: <ul style="list-style-type: none"> <li>• Supply chain management as it pertains to outsourcing and supplier environmental and social performance</li> <li>• Product and service stewardship initiatives</li> </ul>	Relationships: Suppliers* Supply Chain* Environmental Protection: Product Stewardship* Other information available online**
3.17	Reporting organization's approach to managing indirect economic, environmental, and social impacts resulting from its activities	Management System* Employee Well-being: Managing Well-being* Environmental Protection: Management System*
3.18	Major decisions during the reporting period regarding the location of, or changes in, operations	Other information available online**
3.19	Programs and procedures pertaining to economic, environmental and social performance. Include discussion of: <ul style="list-style-type: none"> <li>• priority and target setting;</li> <li>• major programs to improve performance;</li> <li>• internal communication and training;</li> <li>• performance monitoring;</li> <li>• internal and external auditing; and</li> <li>• senior management review</li> </ul>	Management System: Objectives* Management System: Personal Business Commitments* Collaboration and Communications* Learning and Opportunity* Accountability and Sustainability: Corporate Citizenship* Corporate Governance: External Audits* Management System: Internal Audits* Corporate Governance: Leadership*
3.20	Status of certification pertaining to economic, environmental and social management systems	Employee Well-being: Managing Well-being* Environmental Protection: Management System* Other information available online**
<b>GRI CONTENT INDEX</b>		
4.1	A table identifying location of each element of the GRI Report Content, by section and indicator	Accountability and Sustainability: GRI Index**
<b>ECONOMIC PERFORMANCE INDICATORS</b>		
<b>CUSTOMERS</b>		
EC1	Net sales	Revenue: \$96.3 billion (2004) Net income: \$8.4 billion (2004)
EC2	Geographic breakdown of markets	Corporate Profile* Other information available online**
<b>SUPPLIERS</b>		
EC3	Cost of all goods, materials, and services purchased	\$39 billion (2004)
EC4	Percent of contracts that were paid in accordance with agreed terms (e.g. scheduling of payments, form of payment etc)	
EC11	Supplier breakdown by organization and country	
<b>EMPLOYEES</b>		
EC5	Total payroll and benefits expense (incl. wages, pension, redundancy payments) broken down by country or region	Other information available online**

\* IBM Corporate Responsibility site: [www.ibm.com/ibm/responsibility](http://www.ibm.com/ibm/responsibility)  
\*\* GRI Index: [www.ibm.com/ibm/responsibility/sustainability/gri-index.shtml](http://www.ibm.com/ibm/responsibility/sustainability/gri-index.shtml)

GRI SECTION	DESCRIPTION	RELATED INFORMATION FROM IBM
<b>PROVIDERS OF CAPITAL</b>		
EC6	Distributions to providers of capital broken down by interest on debt and borrowings, and dividends on all classes of shares	Other information available online**
EC7	Increase/decrease in retained earnings at end of period	Other information available online**
<b>PUBLIC SECTOR</b>		
EC8	Total sum of taxes of all types paid, broken down by country	Other information available online**
EC9	Subsidies received broken down by country or region	Corporate Profile* Other information available online**
EC10	Donations to community, civil society, and other groups broken down in terms of cash and in-kind donations per type group	Contributing to Communities* Other information available online**
EC12	Total spent on noncore business infrastructure development	
<b>INDIRECT ECONOMIC IMPACTS</b>		
EC13	Describe the organization's indirect economic impacts	Contributing to Communities: On Demand Community* Governments and Public Policy: e-government* Other information available online**
<b>ENVIRONMENTAL PERFORMANCE INDICATORS</b>		
<b>MATERIALS</b>		
EN1	Total materials use other than water by type (report in tons, kg or volume)	
EN2	Percentage of materials used that are wastes (processed or unprocessed) from sources external to the reporting organization. (Refers to both post-consumer recycled material and waste from industrial sources)	Environmental Protection: Product Stewardship*
<b>ENERGY</b>		
EN3	Direct energy use segmented by primary source	Environmental Protection: Energy*
EN4	Indirect energy use	Environmental Protection: Energy*
EN17	Initiatives to use renewable energy sources and increase energy efficiency	Environmental Protection: Energy*
EN18	Energy consumption footprint (i.e. annualized lifetime energy requirements) of major products	
EN19	Other indirect (upstream/downstream) energy use and implications, such as organizational travel, product lifecycle management and use of energy-intensive materials	Environmental Protection: Product Stewardship*
<b>WATER</b>		
EN5	Total water use	Environmental Protection: Water Conservation*
EN20	Identify water sources and related ecosystems/habitats significantly affected by the organization's use of water	
EN21	Annual withdrawals of ground and surface water as a percent of annual renewable quantity of water available from the sources	
EN22	Total recycling and reuse of water. Includes wastewater and other used water (e.g. cooling water)	Environmental Protection: Water Conservation*

\* IBM Corporate Responsibility site: [www.ibm.com/ibm/responsibility](http://www.ibm.com/ibm/responsibility)  
\*\* GRI Index: [www.ibm.com/ibm/responsibility/sustainability/gri-index.shtml](http://www.ibm.com/ibm/responsibility/sustainability/gri-index.shtml)

GRI SECTION	DESCRIPTION	RELATED INFORMATION FROM IBM
<b>BIODIVERSITY</b>		
EN6	Location and size of land owned, leased, or managed in biodiversity-rich habitats (info on these pending from GRI)	Environmental Protection: Management System*
EN7	Description of the major impacts on biodiversity associated with the organization's activities and/or products and services in terrestrial, freshwater, and marine environments	
EN23	Total amount of land owned, leased, or managed for production activities or extractive use by the organization	
EN24	Amount of impermeable surface as a percentage of land purchased or leased	
EN25	Impacts of organization's activities and operations on protected and sensitive areas	
EN26	Changes to natural habitats resulting from activities and percentage of habitat protected or restored	
EN27	Objectives, programs and targets for protecting and restoring native ecosystems and species in degraded areas	
EN28	Number of IUCN Red List species with habitats in areas affected by operations	
EN29	List business units currently operating or planning operations in or around protected or sensitive areas	
<b>EMISSIONS, EFFLUENTS AND WASTE</b>		
EN8	Greenhouse gas emissions	Environmental Protection: Climate Change*
EN9	Use and emissions of ozone-depleting substances	Eliminated in 1993
EN10	NOx, SOx and other significant air emissions by type.	Environmental Protection: Climate Change*
EN11	Total amount of waste by type and destination	Environmental Protection: Pollution Prevention*
EN12	Significant discharges to water by type	Environmental Protection: Releases*
EN13	Significant spills of chemicals, oils and fuels in terms of total number and total volume (significance defined in terms of both the size of the spill and impact on the surrounding environment)	Environmental Protection: Audits and Compliance*
EN30	Other relevant indirect greenhouse gas emissions Environmental protection: energy conservation	
EN31	Identify all production, transport, import or export of any waste deemed "hazardous" under the terms of the Basel Convention Annex I, II, III and VIII	
EN32	Water sources and related ecosystems/habitats significantly affected by the organization's discharges of water and runoff	
<b>SUPPLIERS</b>		
EN33	Performance of suppliers relative to environmental components of programs and procedures described in response to Governance Structure and Management Systems section	Environmental Protection: Management System* Supply Chain: Supplier Conduct* Relationships: Suppliers*
<b>PRODUCTS AND SERVICES</b>		
EN14	Significant environmental impacts of principle products and services	
EN15	Percentage of the weight of products sold that is reclaimable at the end of the products' useful life and percentage that is actually reclaimed	Environmental Protection: Product Stewardship*
<b>COMPLIANCE</b>		
EN16	Incidents of and fines for non-compliance with all applicable international declarations/conventions/treaties, and national, subnational, regional, and local regulations associated with environmental issues	Environmental Protection: Audits and Compliance*

\* IBM Corporate Responsibility site: [www.ibm.com/ibm/responsibility](http://www.ibm.com/ibm/responsibility)

GRI SECTION	DESCRIPTION	RELATED INFORMATION FROM IBM
TRANSPORT		
EN34	Describe significant environmental impacts of transportation used for logistical purposes	
OVERALL		
EN35	Total environmental expenditures by type	Environmental Protection: Management System*
LABOR PRACTICES AND DECENT WORK		
EMPLOYMENT		
LA1	Breakdown of workforce, where possible, by region/country, status (employee/nonemployee, employment type (full time/part time), and by employment contract (indefinite or permanent/fixed term or temporary). Also identify workforce retained in conjunction with other employers (temporary agency workers or workers in co-employment relationships), segmented by region/country.	Other information available online**
LA2	Net employment creation and average turnover segmented by region/country	
LA12	Employee benefits beyond those legally mandated	Employee Well-being: Promoting Health and Well-being* Employee Well-being: Incentives to Health* Employee Well-being: Work/life Balance* Learning and Opportunity* Compensation and Benefits: Health and Retirement* Compensation and Benefits: Awards and Recognition* Compensation and Benefits: Equity Ownership*
LABOR/MANAGEMENT RELATIONS		
LA3	Percentage of employees represented by independent union organizations or other bona fide employee trade representatives, broken down geographically, OR percentage covered by collective bargaining agreements, broken down by region/country.	
LA4	Policy and procedures involving information, consultation and negotiation with employees over changes in the reporting organization's operations (e.g., restructuring)	Employee Well-being: Workforce Relations* Collaboration and Communications: Internal Appeals* Collaboration and Communications: Online Jams*
LA13	Provision for formal worker representation in decision making or management, including corporate governance	Learning and Opportunity: Employee Opportunity* Employee Well-being: Workforce Relations* Collaboration and Communications: Internal Appeals* Corporate Governance: Leadership*
HEALTH AND SAFETY		
LA5	Practices on recording and notification of occupational accidents and diseases, and how they relate to the ILO Code of Practice on Recording and Notification of Occupational Accidents and Diseases	
LA6	Description of formal joint health and safety committees comprising management and worker representatives and proportion of workforce covered by any such committees	
LA7	Standard injury, lost day and absentee rates and number of work-related fatalities (including subcontracted workers)	Employee Well-being: Workplace Safety*
LA8	Description of policies or programs (for the workplace and beyond) on HIV/AIDS	
LA14	Evidence of substantial compliance with the ILO Guidelines for Occupational Health Management Systems	
LA15	Description of formal agreements with trade unions or other bona fide employee representatives covering health and safety at work and proportion of the workforce covered by any such agreements	

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\*\* GRI Index: [www.ibm.com/ibm/responsibility/sustainability/gri-index.shtml](http://www.ibm.com/ibm/responsibility/sustainability/gri-index.shtml)

GRI SECTION	DESCRIPTION	RELATED INFORMATION FROM IBM
<b>TRAINING AND EDUCATION</b>		
LA9	Average hours of training per year per employee by category of employee	Learning and Opportunity*
LA16	Description of programs to support the continued employability of employees and to manage career endings	Learning and Opportunity: Employee Opportunity*
LA17	Specific policies and programs for skills management or for lifelong learning	Learning and Opportunity: People Development* Learning and Opportunity: Leadership Development* Other information available online**
<b>DIVERSITY AND OPPORTUNITY</b>		
LA10	Description of equal opportunity policies or programs, as well as monitoring systems to ensure compliance and results of monitoring	Workforce Diversity*
LA11	Composition of senior management and corporate governance bodies (including board of directors), including female/male ratio and other indicators of diversity as culturally appropriate	Workforce Diversity: Diversity as Strategy* Corporate Governance: Leadership* Other information available online**
<b>HUMAN RIGHTS</b>		
<b>STRATEGY AND MANAGEMENT</b>		
HR1	Description of policies, guidelines, corporate structure and procedures to deal with all aspects of human rights relevant to the reporter's operations, including monitoring mechanisms and results	Management System: Policies— Global Employment Standards* Supply Chain Principles*
HR2	Evidence of consideration of human rights impacts as part of investment and procurement decisions, including selection of suppliers/contractors	Supply Chain: Supplier Conduct*
HR3	Description of policies and procedures to evaluate and address human rights performance within the supply chain and contractors, including monitoring systems and results of monitoring	Supply Chain: Supplier Conduct*
HR8	Employee training on policies and practices concerning all aspects of human rights relevant to operations	Management System: Business Conduct Guidelines*
<b>NONDISCRIMINATION</b>		
HR4	Description of global policy and procedures/programs preventing all forms of discrimination in operations, including monitoring systems and results of monitoring	Workforce Diversity: Training* Workforce Diversity: Task Forces, Councils, and Network Groups* Workforce Diversity: Government Requirements* Collaboration and Communications: Internal Appeals*
<b>FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING</b>		
HR5	Description of freedom of association policy and extent to which it is universally applied independent of local laws, and description of procedures/programs to address this issue	Management System: Policies— Global Employment Standards*
<b>CHILD LABOR</b>		
HR6	Description of policy excluding child labor as defined by the ILO Convention 138 and extent to which this policy is visibly stated and applied, as well as description of procedures/programs to address this issue, including monitoring systems and results of monitoring	Management System: Policies— Global Employment Standards*

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GRI SECTION	DESCRIPTION	RELATED INFORMATION FROM IBM
<b>FORCED AND COMPULSORY LABOR</b>		
HR7	Description of policy to prevent force and compulsory labor and extent to which this policy is visibly stated and applied, as well as description of procedures/programs to address this issue, including monitoring systems and results of monitoring	Management System: Policies— Global Employment Standards*
<b>DISCIPLINARY PRACTICES</b>		
HR9	Description of appeal practices, including, but not limited to, human rights issues	Collaboration and Communications: Internal Appeals*
HR10	Description of non-retaliation policy and effective, confidential employee grievance system (including, but not limited to, its impact on human rights)	Collaboration and Communications: Internal Appeals*
<b>SECURITY PRACTICES</b>		
HR11	Human rights training for security personnel	
<b>INDIGENOUS RIGHTS</b>		
HR12	Description of policies, guidelines, and procedures to address the needs of indigenous people	
HR13	Description of jointly managed community grievance mechanisms/authority	
HR14	Share of operating revenues from the area of operations that are redistributed to local communities	
<b>SOCIETY</b>		
<b>COMMUNITY</b>		
SO1	Description of policies to manage impacts on communities in areas affected by activities, as well as description of procedures/programs to address this issue, including monitoring systems and results of monitoring	Relationships: Communities*
SO4	Awards received relevant to social, ethical and environmental performance	Employee Well-being* Workforce Diversity* Learning and Opportunity* Contributing to Communities* Environmental Protection* Security and Privacy*
<b>BRIBERY AND CORRUPTION</b>		
SO2	Description of the policy, procedures/management systems, and compliance mechanisms for organizations and employees addressing bribery and corruption	Management System: Policies— Business Conduct* Management System: Business Conduct Guidelines*
<b>POLITICAL CONTRIBUTIONS</b>		
SO3	Description policy, procedures/management systems and compliance mechanisms for managing political lobbying and contributions	Management System: Policies— Politics*
SO5	Amount of money paid political parties and institutions whose prime function is to fund political parties or their candidates	Management System: Policies— Politics*
<b>COMPETITION AND PRICING</b>		
SO6	Court decisions regarding cases pertaining to anti-trust and monopoly regulations	
SO7	Description of policy, procedures/management systems, and compliance mechanisms for preventing anti-competitive behavior	

\* IBM Corporate Responsibility site: [www.ibm.com/ibm/responsibility](http://www.ibm.com/ibm/responsibility)

GRI SECTION	DESCRIPTION	RELATED INFORMATION FROM IBM
<b>PRODUCT RESPONSIBILITY</b>		
<b>CUSTOMER HEALTH AND SAFETY</b>		
PR1	Description of policy for preserving customer health and safety during use of products and services, and extent to which this policy is visibly stated and applied, as well as description of procedures/programs to address this issue, including monitoring systems and results of monitoring	Management System: Policies—Well-being and Safety*
PR4	Number and type of instances of non-compliance with regulations concerning customer health and safety, including the penalties and fines assessed for these breaches	
PR5	Number of complaints upheld by regulatory or similar bodies to oversee or regulate the health and safety of products and services	
PR6	Voluntary code compliance, product labels or awards with respect to social and/or environmental responsibility that the reporter is qualified to use or has received	Environmental Protection*
<b>PRODUCTS AND SERVICES</b>		
PR2	Description of policy, procedures/management systems, and compliance mechanisms related to product information and labeling	Environmental Protection: Product Stewardship*
PR7	Number and type of instances of noncompliance with regulations concerning product information and labeling, including any penalties or fines assessed for these breaches	
PR8	Description policy, procedures/management systems, and compliance mechanisms related to customer satisfaction, including results of surveys measuring customer satisfaction. Identify geographic areas covered by policy.	Relationships: Clients*
<b>ADVERTISING</b>		
PR9	Description policies, procedures/management systems and compliance mechanisms for adherence to standards and voluntary codes related to advertising	
PR10	Number and types of breaches of advertising and marketing regulations	
<b>RESPECT FOR PRIVACY</b>		
PR3	Description policy, procedures/management systems and compliance mechanisms for consumer privacy	Security and Privacy: Privacy Commitment*
PR11	Number of substantiated complaints regarding breaches of consumer privacy	

\* IBM Corporate Responsibility site: [www.ibm.com/ibm/responsibility](http://www.ibm.com/ibm/responsibility)

## SUPPLY CHAIN

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*The value of any company's supply chain strategy must be viewed in the context of its business strategy.*

The goal isn't to have the best supply chain strategy, but to determine how—through effective and efficient process and resource deployment—the supply chain can most effectively help the company reach its strategic goals.

If, like IBM, a company's goals include furthering responsible corporate practices and making the world a better place, then a supply chain can be a powerful lever to apply in realizing those goals.

Our belief is that responsible supply chain management takes into account social, financial and operational issues, and as a matter of a company's core management system, continually strives to meet the needs of the business in a way that furthers the company's values.

This approach—starting with linking our supply chain strategy to IBM's business strategy across all these dimensions and then assembling the right combination of skills and resources to support it—has never been more important.

That's because in today's on demand environment, supply chain relationships are more integrated and interconnected, which in turn requires every company to share accountability for promoting standards of behavior across the entire ecosystem.

When IBM created the Integrated Supply Chain (ISC) in 2002, the driving force behind this decision was to enable IBM to become the most adaptive and responsive enterprise in the industry, serving clients better than any company in the world.

This decision helped us look more closely at the role a supply chain plays in our business. We understand that we have multiple points of "influence" in our supply chain—from the amount of money we spend annually, to our global reach, to our years of experience, and to our work with governments and academe—that can contribute to or detract from our overall corporate responsibility goals.

In 2004, the total value of goods and services procured by IBM was \$39 billion. For IBM, the magnitude of this supply chain spending has immense implications, not only as a point of focus for improving business processes but also for insisting on socially responsible behaviors throughout our entire business ecosystem.

## Supplier Conduct Principles

While IBM has been a leader in promoting standards in the areas of quality and environmental protection for more than three decades, in an on demand world the ante goes way up.

That's why, in 2004, the company raised the bar, publishing its Supplier Conduct Principles that redoubled its commitment to existing standards and added new ones in the areas of health, safety, and labor and employment practices. IBM holds its suppliers accountable for complying with these standards.

These principles establish for our suppliers the minimum standards we expect from them as a condition of doing business with IBM. Our goal is to work with our suppliers to foster full compliance as they, in turn, apply these standards to their extended sources of supply that are engaged in the production of goods and services for IBM. We will have the right to take action with suppliers that fail to comply with these principles, including terminating our relationship with them.

We consider these principles and supplier adherence to them in our selection process and we verify compliance by actively monitoring performance. IBM has initiated a series of on-location supplier audits, which have already been conducted with our first-tier suppliers in Mexico. Another round of audits is currently under way with our first-tier suppliers in China, India, the Philippines and Thailand. In cases in which we have found our suppliers to be non-compliant with any of our principles, they have been very responsive in addressing them, submitting acceptable improvement plans.

IBM's supply chain principles are available on its procurement Web site: [www.ibm.com/procurement](http://www.ibm.com/procurement).

### THE ELECTRONIC INDUSTRY CODE

Today, we hold our suppliers accountable to our own set of principles; however, we understand that the interconnect-ness of market forces—the networks that nourish any supply chain—need to be addressed as broadly as possible.

That's why IBM is a member of an industry group that developed the Electronic Industry Code of Conduct (EICoC) with seven other companies, including HP, Dell, Sanmina-SCI, Solectron, Celestica, Flextronics and Jabil. The EICoC was announced in October 2004 and has subsequently been adopted by other firms in the industry.

With an industry Code of Conduct, suppliers can focus their compliance efforts on a single set of standards that can be implemented and assessed more easily. IBM accepts this code as an equivalent alternate to IBM's existing supplier conduct principles.

Industry standards drive deep into the entire business ecosystem and can stimulate socially responsible behavior far beyond any one industry. For example, a trucking company employed to transport materials for one of the signatories of the industry code would likely conform to the same socially beneficial standards when contracting with other industries, thus extending socially responsible behavior far beyond the supply chain of one economic sector.

The outcome of our insistence on standards for socially responsible behavior—which in some cases exceed local legal requirements—is to enhance human well-being, with the inevitable corollary of creating sounder and more robust markets.

## Supplier Diversity

The value of expanding diversity among IBM's suppliers has always been a strategic business decision that is also morally rewarding. In 2000, IBM was the first IT company to spend \$1 billion with diverse-owned businesses. Four years later, in 2004, IBM increased its spending by 60 percent, procuring \$1.6 billion of goods or services from 333 businesses owned and operated by minorities, women, veterans, people with disabilities, gays and lesbians.

IBM has been widely recognized for its achievements in diversifying its supply chain. In 2004, the company was named Supplier Diversity Corporation of the year by the National Gay and Lesbian Chamber of Commerce and by the Central South Texas Minority Business Council. The Women's Business Enterprise Council of Pennsylvania/New Jersey/Delaware presented IBM its Corporation of the Year Award, and the Women's Business Enterprise National Council called IBM one of its "Elite Eleven" companies supporting women-owned businesses. Div2000's Internet election for the "Top 50 Corporations for Multicultural Opportunities" voted IBM number one. In 2003, IBM was named corporation of the year by the New England Minority Suppliers Development Council, an affiliate of the National Minority Suppliers Development Council; we also received Div2000's best ranking in 2003.

But IBM's commitment to greater diversity is also driven by the recognition that the skills and insights required to meet client needs are as diverse as the human population. To succeed, we must recruit those skills not only through employment practices but also through diversifying our supply chain. Small and medium-sized businesses, specifically minority-owned, are growing five times faster than other groups and represent a huge market opportunity for IBM. And with the growing rate of these businesses, a diverse and inclusive supply chain is a positive force for meeting the particular and nuanced needs of our myriad customers.

## Advising and Educating

In addition to our industry leadership positions in requirements for supplier conduct and our own requirements for supplier diversity, IBM is also a leader in supply chain management and consulting.

In 2002, the company integrated its own supply chain—from order entry, procurement, manufacturing, logistics to fulfillment—arranging supply chain management into a single organization that is accountable, transparent and flexible.

In the same year, with the creation of IBM Business Consulting Services, the company strengthened its ability to offer supply chain consultation and systems integration to clients, particularly in the growing field of business transformation outsourcing (BTO). This new kind of partnership involves the management and transformation of business processes, and we have established growing BTO practices in several areas, including procurement. We estimate that our expertise in running our own integrated supply chain has represented \$600 million in engagements in which IBM is helping clients transform their supply chains.

IBM is also in global partnership with five major universities (Michigan State University, Pennsylvania State University, Arizona State University, University College—Dublin, and the National University of Singapore) that have established advanced On Demand Supply Chain Solutions Centers using IBM's on demand solutions coupled with state-of-the-art supply chain management, simulation and modeling tools.

These will be the premier centers for joint applied research and development for issues of supply chain management, as well as for curriculum design and enhancement in work that will define the supply chain of the future and will act as a catalyst in driving solutions to tomorrow's supply chain challenges. By fostering collaboration between the academic community and IBM, these solutions centers will form the basis for a virtual organization of researchers and practitioners sharing resources and insights.

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— OUR PEOPLE —

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## COMPENSATION AND BENEFITS

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*During the past decade, IBM has significantly reoriented its reward strategy, focusing more of its compensation investment on programs that recognize results than on those that reflect only tenure.*

Today, IBM's overall compensation strategy is designed to deliver market-based, performance-driven pay in all segments of our business portfolio, and to reward appropriately our highest contributors. We do this through a combination of base salaries and variable performance-driven bonuses.

Our goal is nothing less than to sustain and renew the highest performing, most effective culture in business. To do that, we seek to hire, measure and reward the individuals who create that culture every day.

### Pay

IBM's overall compensation strategy is designed to:

- **Pay competitively:** based on market rates in the IT industry and within any geography where we compete for talent.
- **Pay for performance:** focused on actual results (not on effort and years of service), while recognizing the relative contribution of team members.
- **Differentiate strongly:** distributing a proportionally larger share of the rewards to our highest contributors.

Business performance directly affects how much money a company can—and should—invest in pay for its people. During the IT industry downturn in the first part of this decade, IBM was nearly alone among competitors that continued to invest in its people, reflecting our generally stronger business performance. That trend—and our practice of paying competitively—continues.

In addition to competitive base pay, every IBM employee worldwide has additional pay opportunity directly tied to individual and business performance. The type of opportunity depends on job role. Consultants in our services business are eligible for performance bonuses; salespeople receive sales commissions; executives are eligible for incentive pay. In 2003, all other employees were eligible for a program called “variable pay,” with payouts in 2004.

For 2004, IBM's nearly 10-year-old variable pay program was reshaped as a new employee Performance Bonus program. The program, available only to nonexecutive employees who are not eligible for other incentive plans, pays a bonus depending on business performance and the relative contribution of individual employees.

### PERSONAL BUSINESS COMMITMENTS

The new bonus program is the result of wider changes IBM undertook to strengthen two bedrock imperatives of our compensation philosophy: *pay for performance and differentiate strongly*. In global discussion forums, learning activities and feedback, beginning in 2002 and continuing through 2003, first-line managers identified issues in the previous performance review and bonus pay program that they felt obstructed their ability to manage their employees according to IBM's career and compensation strategies.

To address these and other issues, and to strengthen the responsibility of our people managers for having a positive impact on the business and the careers of their

employees, IBM redesigned the global process in which all employees, from the chairman to the newest hire, establish their annual goals and have their performance assessed. The chairman reviews his performance with the Board of Directors. The new Personal Business Commitments (PBCs) program is a key element in IBM's management system for accountability on issues related to business performance, managerial excellence, training and development, and corporate responsibility.

The changes in the decade-old program now provide opportunities for expanded recognition of all above-average performers, clarify consequences for the lowest performers, and make managers and executives more accountable for their roles as managers of people and not just of business results.

To accomplish these changes, the performance rating system was redefined and expanded, and the goal-setting framework changed for 2004. First-line managers were given—for the first time—the flexibility to make decisions for individual employee bonuses. This is a significant change from the fixed payments tied to assessment ratings in the past. Today at IBM, funding for the Performance Bonus is based on bonus targets and year-end business scores. Central to the program's redesign is a commitment that no manager will be held to any prescribed outcomes for an individual's performance appraisal ratings based on statistical distributions or budget factors.

## Equity Ownership

IBM's shares are, on the one hand, one of the most widely held and actively traded stocks on the New York Stock Exchange. On the other hand, we estimate that we have more shareholders who are current or former employees of IBM than approximately 95 percent of other publicly traded companies have shareholders—period. At the end of 2004, nonexecutive employees owned approximately 7 percent of outstanding company shares. Senior executives and officers owned less than 1 percent, as disclosed in the 2005 IBM proxy statement.

### STOCK OPTIONS

While many companies must seek to balance shareholder interests with employee interests, IBM has a long tradition of working to align those interests. We have offered some form of employee stock purchase plan with only a few

interruptions since 1958. And over the past decade, IBM has expanded the number of nonexecutive employees who are granted equity awards, increasing from fewer than 2,000 nonexecutive stock option holders in 1997 to approximately 79,000 by year-end 2003.

The trend at other companies in our industry has been to grant options to all employees, or at least all salaried employees. IBM, however, as the largest IT company with a long history of public ownership, is more selective in its use of equity awards, and prefers to use equity awards as a tool to retain talented individuals rather than as an element in employee compensation.

### EMPLOYEE PURCHASES

In addition to the global employee stock option program, IBM also makes discounted company stock available for employee purchase through a global Employees Stock Purchase Plan. At the end of 2004, slightly more than half of all IBMers worldwide participated in this voluntary program.

In recent years, the ESPP has been modified to reflect changes in the business climate. In 2005, due to expensing regulations that will affect the way U.S. companies account for employee stock discount programs (including stock purchase plans), the program will undergo additional changes.

## Executive Compensation

At a time of increasing focus on executive compensation—especially in the area of options—in 2004, IBM set a new standard in responsible corporate governance with an innovative approach to executive equity.

Designed to ensure that shareholders first receive a return before executives see value from their option grants, IBM adopted premium-priced stock options for senior leaders. If a senior executive qualifies for stock options during the year—and not all do—he or she receives the options priced 10 percent higher than IBM's market price on the date the options are issued. This means that the stock price must grow beyond 10 percent for the premium-priced option to return any value to the executive. These new premium-priced options replace at-the-money stock options previously issued in executive awards and still in use at most companies.

In a second innovation, senior leaders will be eligible for at-the-money stock options only if they invest a portion of annual compensation in IBM stock and maintain that holding for at least three years. This unique “buy-first” plan was designed to further encourage executive ownership while ensuring that our leaders experience the same ups and downs as other shareholders. The company’s top 300 leaders are required to own IBM stock, while all other executives are encouraged to do so.

IBM’s policy contrasts with the practice of many companies that simply issue shares of restricted stock outright as part of executive compensation packages.

At IBM, employee and executive compensation are built on similar fundamental pay-for-performance principles and share many common programs. The differences are primarily ones of degree. All executives have a much greater share of overall compensation at risk than do employees, as is appropriate, reflecting their much increased level of responsibility. There is also greater focus on equity ownership for executives, further reflecting their ability to influence business results.

IBM’s 300 most senior leaders are expected to own defined amounts of company stock, linked to their responsibilities and pay levels, and they are not allowed to sell any company stock unless minimum ownership requirements are met. While all U.S. companies must restrict the instances when top executives can trade stock, IBM exceeds SEC guidelines in this area. We restrict a larger group of executives from trading—the top 300—and we extend the restrictions for a longer period of time each quarter.

Finally, IBM’s executive compensation practices and programs are regularly reviewed by a committee of the Board of Directors solely comprising independent, non-employee directors.

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*IBM stock options are granted under IBM’s Long-Term Performance Plans and Stock Option Award Agreements. This document includes highlights of the stock option program and may not fully reflect all aspects of that plan and agreement. The official plan documents and award agreement (including provisions relating to cancellation and rescission of awards) remain the final authority and, in the event of a conflict with this page, shall govern.*

## Health and Retirement

At IBM, employer-provided benefits represent a significant investment by the company in its employees. Benefits, and the value delivered, vary country by country, due to differences in local customs, laws and statutory requirements.

IBM benefits are designed to attract and retain employees by helping them pay for health care, set aside money for retirement, encourage time off and support them during periods of crisis, such as disability, in ways that are sensitive to local customs and requirements and that are competitive within the IT and business services marketplace.

To the greatest extent practical, programs provide employees with choices to meet personal needs that may change over time. In many countries, such as Canada and Australia, for example, IBM offers employees a flexible menu of benefit options. Employees are provided with a core set of benefits plus an allocation of “credits” that they can use at their discretion to choose additional levels of benefit coverage under those programs that matter most to them.

Wherever practical and possible, IBM delivers transactional benefits capability electronically, either directly or through administrative vendors.

### HEALTH BENEFITS

IBM defrays the costs of health services for employees, either directly through private employer-sponsored coverage, such as in the United States and Canada, or indirectly through government-required contributions to state-sponsored programs, which is common through much of Europe and parts of Asia.

IBM invests in health care, both financially and in the public policy arena, to help realize the productivity and innovation potential of its people. In 2004, IBM continued to be actively engaged in a broad range of health policy initiatives, particularly in the United States, where questions of affordability and access are once again prominent national concerns.

While IBM is primarily committed to help employees defray health care costs, it also continues to extend coverage to retirees in those countries with limited or no access to public systems. In the United States, for example, IBM spends approximately \$600 million annually on retiree health care and an additional \$200 million in Medicare payroll taxes to provide health coverage for about 120,000 retirees, plus family members.

#### RETIREMENT BENEFITS

IBM provides retirement benefits to employees in all countries, either directly through company-sponsored plans, through contributions to state-sponsored programs, or through a combination of both. Plans are funded according to country requirements and guidelines.

In most countries, IBM pension benefits take the form of cash balance or defined contribution plans. In the United States, the IBM 401(k) plan includes innovative features: both installment and annuity payment options, optional disability protection insurance (the only plan in the country to offer this feature at the time of its announcement), and an all-cash match, with employees free to invest the money among 23 different investment options. In 2005, the plan will offer access to 175 commercially available mutual funds through a brokerage window.

In third quarter 2004, IBM announced it had reached an agreement in principle to settle some of the claims in a class-action lawsuit in U.S. District Court over the validity of its current pension plan formulas. In late 2004, IBM also announced it would begin to offer new U.S. hires a 401(k) pension program beginning in 2005, rather than have new hires join the existing pension plan. The new 401(k) pension program features an industry-leading match, along with the other innovative features available through the existing 401(k) plan for all employees.

## Awards and Recognition

As part of IBM's pay-for-performance environment, a wide range of other award and recognition programs are available—from manager-determined recognition awards to technical recognition awards to peer awards. In 2003, 258,800 awards were granted to employees, ranging from merchandise to cash awards. That same year, more than 140,000 IBMers sent company-provided awards to colleagues through IBM's Thanks! Award Program in recognition for work well done.

In early 2004, IBM's global recognition program was streamlined and reintroduced around the world. The new program, "The Best of IBM," is designed to invigorate recognition at IBM by drawing a more explicit link to IBMers' values—and by rewarding key behaviors that drive results contributing to IBM's success. Award values can range from IBM logo merchandise worth approximately \$25 up to awards worth \$10,000 for exceptional contributions. (Actual award values vary by country, depending on currency exchange rates and local custom.)

In addition to this framework of awards that any employee could potentially receive, IBM regularly marks 10 years and 25 years of employment as an IBMer. The company also makes other awards or recognizes achievements unique to individual job types, business units, and countries, such as our global awards recognizing technical contributions that have value to IBM and our portfolio of intellectual property.

## EMPLOYEE WELL-BEING

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*A safe environment, healthy employees, jobs that can be done without harm or injury—none of these can occur if a corporation reacts to situations only when they arise, because by that time, it may be too late.*

As with other innovations in the life and work of employees, IBM sought a leadership position on workplace safety even before Thomas J. Watson, Jr., issued our first formal policy in 1967.

To ensure a consistent standard of care, IBM's proactive approach to well-being is managed globally, but is implemented locally, according to local needs and customs.

Our foundation for the management of employee well-being derives from IBM's corporate policy on "Responsibility for Employee Well-being and Product Safety." We turn this policy into action through the IBM Global Practices, which document our global standards for employee safety and well-being. Requirements and standards are universal across all IBM geographies but allow maximum flexibility for efficient implementation in a variety of cultures, work settings and regulatory environments.

Central to our holistic approach to employee well-being is IBM's global health benefits strategy, which focuses on preventive care, healthy lifestyle choices, and good health care decision making—while also providing flexibility to IBM and its employees. This includes:

- *Helping employees take responsibility for healthy behavior and become more involved in treatment decisions.*
- *Enabling informed health care decision making by providing information that helps individuals choose health plans that offer optimal value and improve efficiency in the system.*
- *Providing technology-enabled, smart delivery of innovative health care services.*

In the United States, IBM seeks influence with the government to develop and support solutions to the national health care challenge, including tax-advantaged employment-based health care accounts, innovative nonemployment-based demonstration projects, health care process redesign, universal access, and improved patient safety and health care quality.

### Managing Well-being

Employee well-being is built into every aspect of IBM's working environment, from the design of manufacturing tools to chemical management; to facility design, construction and operation; to ongoing training and awareness. Workplace conditions and program compliance are regularly reviewed, with assessments performed both by line management and by a dedicated global team of more than 200 qualified IBM safety engineers, industrial hygienists, and occupational health nurses and physicians. Managers in all types of environments use innovative self-assessment tools that are designed for their particular environment and work location.

The establishment of a workplace that enables physical and psychological fitness is driven by IBM's Well-Being Management System (WBMS)—the company's holistic approach to managing the health and safety of employees wherever they work. Our integrated approach to employee well-being ranges from the more traditional aspects of occupational health and safety—such as industrial

hygiene, safety, medical issues, and ergonomics—to innovative and proactive wellness initiatives, including a broad array of preventive employee health benefits.

Launched in 1999, the WBMS ensures proactive planning, compliance, measurement and continual improvement in all areas of well-being. As a management system, it has been implemented worldwide across IBM's business units—including manufacturing, research and development, and in our services and sales organizations.

Each year, a targeting process considers new global objectives and links them with local well-being activities. Examples of areas of special emphasis in the past several years included health promotion, mobility, and workplace climate, such as:

- *Improving employee productivity through better access to wellness programs with an increased emphasis on prevention.*
- *Measuring the effectiveness of defensive driving training.*
- *Improving workplace climate and employee satisfaction by enhancing the physical work environment.*

IBM's WBMS has received third-party certification and recognition in several countries, ranging from certification of our WBMS in Singapore by an external organization, to AS/NZS 4804:2001 certification in IBM Australia/New Zealand, to Colombian Safety Council certification (based on BSI 8800) in Colombia. In addition, several of IBM's U.S. facilities have been approved by their state or national OSHA organizations to be Voluntary Protection Program Star sites, recognizing that our employee well-being programs exceed OSHA requirements and serve as models for other companies.

## CHANGING JOBS CHANGE PRIORITIES

As IBM has transitioned from a company with a large manufacturing workforce to a company with a larger number of employees in services jobs, our Global Practices provide additional focus on enhancing safety at newly acquired, client and at-home work locations, as well as on driving and travel safety. A combination of requirements, recommendations, best practices and information resources, these Global Practices help assure the well-being of employees, no matter where or when they work.

Every IBM employee has access to qualified physicians, nurses and other well-being professionals with whom they can interact directly and confidentially on issues of workplace well-being.

## SUPPLIER EMPLOYEES

IBM's consideration of well-being does not stop at its own employees. We require our key supply chain partners not only to comply with regulatory and legal requirements but also to conform to sound health and safety management principles that include identifying potential risks, implementing programs to control those risks, monitoring conditions and ensuring executive level leadership. Suppliers must provide their employees with a safe and healthy workplace and must have and implement effective programs that encompass life safety, incident investigation, chemical safety, and ergonomics, and provide the same standard of health and safety in any housing that is provided for employees.



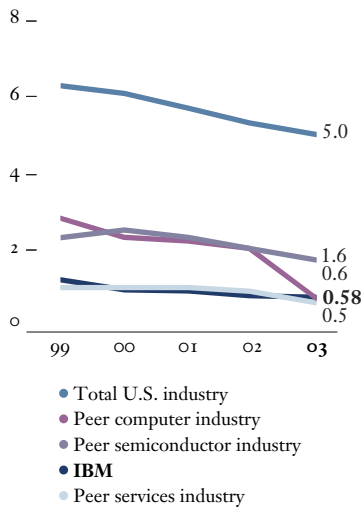
## Workplace Safety

Our commitment to workplace safety was first formalized as a corporate policy in 1967. Today, IBM's safety record continues to be among the best in industry, as documented in the rates of illness and injury, and as measured by the U.S. Occupational Safety and Health Administration.

A number of IBM sites in the United States have received OSHA's highest recognition as Voluntary Protection Program (VPP) Star sites. They include IBM's sites in Rochester, Minnesota; San Jose, California; Yorktown Heights, New York; and Tucson, Arizona. Sites are reevaluated every three to five years for continuing improvement.

The chart below presents IBM U.S. rates for work-related injury or illness, along with the rates for general industry and peer industry sectors.

U.S. WORK-RELATED INJURY/ILLNESS  
RATE COMPARISONS  
(rate per 100 employees)



These are the rates for total work-related injury/illness cases reported under the U.S. Occupational Safety and Health Act (OSHA). In addition to lost-time cases, they include cases that required medical treatment or restricted the employee's work activity. Some numbers have been updated from prior years.

Note: OSHA recordkeeping rules changed in 2002.

IBM has adopted the National Fire Protection Association's "Life Safety Code 101." Life safety review teams have been trained in each of the geographies where IBM has facilities. These teams review newly occupied buildings, both owned and leased, to ensure that life safety requirements are met. In 2003—in addition to ongoing evaluations at established research, development and manufacturing locations health and safety reviews were conducted in more than 145 office buildings globally, covering a work environment of approximately 40,000 employees. As a result of these reviews, numerous safety and health enhancements have been implemented.

### SAFETY FIRST...AND ALWAYS

When an illness or injury occurs, the objective is threefold: help restore the employee's health as soon as possible, prevent further occurrence, and help support the employee during his or her time off from work. In many countries, IBM employees injured in the workplace are eligible for workers' compensation benefits.

In the United States, the 2003 number of claims per 100 employees decreased by 20 percent from the previous year. The total claims cost decreased by 4.6 percent, despite continuing factors such as increased medical costs and inflation.

Also, in 2003, IBM was awarded Risk and Insurance Magazine's award for Best Practices in Workers' Compensation. The award was given for a comprehensive program that uses a multidisciplinary approach to deliver ongoing cost savings and results.

IBM's focus on workplace safety extends to contractors working on IBM premises and includes providing information regarding working safely, reviewing potentially high-risk work activities and, where concerns are identified, ensuring they are addressed.

The following table details the performance results of IBM's safety programs in a sampling of countries with manufacturing or hardware development operations in 2003. IBM consistently demonstrates low workday case rates (a measurement of injury/illness severity and business impact).

LOST WORKDAY CASE RATE  
(per 100 employees)

COUNTRY		99	00	01	02	03
Canada	IBM	0.07	0.11	0.08	0.10	<b>0.08</b>
	Available Peer Business	0.61	0.61	0.40	0.44	<b>0.41</b>
China	IBM	0.16	0.15	0.12	n/a	<b>0.00</b>
	Peer Business	n/a	n/a	n/a	n/a	<b>n/a</b>
France	IBM	0.34	0.24	0.25	0.18	<b>0.20</b>
	Available Peer Business	0.93	0.94	0.90	0.70	<b>0.70</b>
Hungary	IBM	0.5	0.57	0.24	0.19	<b>0.37</b>
	Peer Business	n/a	n/a	n/a	n/a	<b>n/a</b>
Ireland	IBM	0.23	0.29	0.25	0.11	<b>0.41</b>
	Available Peer Business	1.29	1.20	1.06	1.77	<b>1.32</b>
Japan	IBM	0.01	0.00	0.01	0.02	<b>0.01</b>
	Available Peer Business	0.09	0.06	0.04	0.06	<b>0.03</b>
Mexico	IBM	0.00	0.00	0.02	0.0	<b>0.16</b>
	Available Peer Business	n/a	n/a	1.3	1.4	<b>1.3</b>
Singapore	IBM	0.11	0.05	0.14	0.43	<b>0.00</b>
	Available Peer Business	0.12	0.06	0.43	0.39	<b>0.38</b>
U.S.	IBM	0.46	0.36	0.36	0.23	<b>0.35</b>
	Available Peer Business	1.7	1.35	0.8	0.8	<b>n/a</b>

*n/a = not available*

*Countries shown are those in which IBM's manufacturing operations are located. The injury rates assume an average of 2000 hours worked per employee per year. Singapore data pertains only to injuries with three or more days of lost time. Because of the differences in governmental reporting requirements, a direct comparison between countries is not appropriate. The peer business rate is an estimate of the average rate for companies doing a type of work similar to that done by IBM in that country. Some country numbers have been updated from prior years.*

## Crisis Management

A sound emergency planning process has allowed IBM to successfully respond to various emergencies and disasters over the years. After the events of September 11, 2001, we added a Corporate Crisis Management Team (CCMT) to our existing emergency process. The CCMT supports the existing crisis management structures at the country level and at individual sites by providing corporate advice and resources as required. The team includes experts in communications, finance, law, sales, security and human resources, as well as doctors, nurses, industrial hygienists, safety engineers, facilities engineers, and manufacturing and development engineers.

Crisis management teams receive annual training that includes learning how to respond to terrorism and other major acts of hostility.

At least two members of the well-being staff are assigned to help a local team deal with various issues and threats to workplace security, such as ionizing radiation, anthrax exposure poisoning, smallpox, nerve agents, security breaches in the heating, ventilation and air conditioning systems, and personal protective equipment. These experts also stay current with changes in threat potential, detection, remediation and cleanup.

Highlights of enhancements made to IBM's crisis management process in 2003 include:

- *Established a worldwide database to provide consistency in the application of crisis management across organizational and geographic lines.*
- *Established a worldwide threat assessment and threat analysis database.*
- *Delivered 3 Web lectures/broadcasts on crisis management for senior location managers.*
- *Created a DVD-based tool—based upon potential chemical, biological, radiological, or nuclear (CBRN) threats and incidents—to help train crisis management teams worldwide.*

The SARS epidemic is a good example of IBM's effective crisis management process. Through preventative measures such as educating all employees, limiting travel to that absolutely necessary to meet business commitments, and both voluntary and mandatory quarantines, there were no confirmed cases of SARS within IBM, as shown in the chart on the following page.

## Promoting Health & Well-being

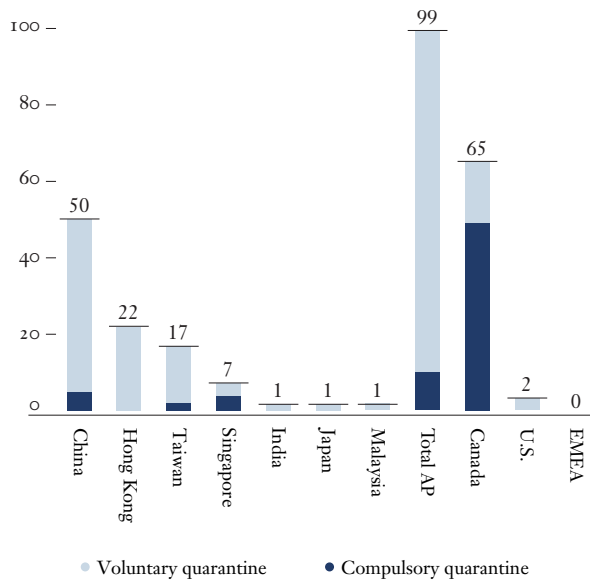
IBM's global health promotion objectives focus on health risk reduction and helping low risk employees maintain low risk. Over the past several years we have improved the integration of wellness programs in order to help employees better navigate and access offerings.

Health and well-being initiatives are promoted as an integrated building block approach that begins with taking a personal health assessment, establishing a plan for lifestyle enhancement, and taking action. These steps provide employees with the education and tools they need to positively impact their personal health and work productivity.

The health promotion strategy is global, but programs are customized to address local needs and cultures. Programs include early diagnosis and disease prevention efforts, such as clinical screenings, immunizations, physical fitness activities, nutrition and weight counseling, and stress management. Other primary prevention efforts include ergonomics and injury/illness prevention programs. Secondary prevention programs focus on early treatment and prevention of complications associated with illness and injury such as condition management, case management and targeted examinations.

2003 SARS QUARANTINE CASES FOR IBM EMPLOYEES

No confirmed positive cases. All employees returned to work.



### Well-being and Health Promotion

	LIFE AT HOME	LIFE IN THE WORKPLACE
<b>Preventive and Wellness Programs</b>	<ul style="list-style-type: none"> <li>• <b>Work/Life Balance Programs</b></li> <li>• <b>Flexible Work Options</b></li> <li>• <b>Leaves of Absence Programs</b> Allow employees to work with their managers to modify their work schedules, or to take months off to balance their work and life</li> <li>• <b>Employee Assistance Program</b> Professional counseling for a broad range of concerns, including substance abuse and depression</li> <li>• <b>Health Promotion</b> Tools and information that help employees to take responsibility for their health</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Accident/Illness Prevention</b> Workplace health and safety programs, such as protective equipment and safety training</li> <li>• <b>Quality of Workplace Environment</b> Programs to make the workplace more comfortable, including proper lighting and other ergonomic considerations</li> <li>• <b>Quality of Facilities</b> Building and fire safety, and accessibility for persons with physical disabilities</li> </ul>
<b>Healthcare Management Programs</b>	<ul style="list-style-type: none"> <li>• <b>Disability Management</b> Support to help employees obtain appropriate healthcare, and to identify and obtain the accommodations necessary to facilitate their return to work</li> <li>• <b>Conditions Management</b> Voluntary, free program to help people with certain conditions take an active role in managing their health</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Temporary Assignment</b></li> <li>• <b>Progressive Return to Work</b> Accommodations that allow an employee with health-related limitations to continue working or to return to work after an illness leave</li> </ul>

## EXAMPLES OF WELL-BEING AND HEALTH PROGRAMS

To meet a range of needs, IBM offers well-being and health programs onsite and online. Some of the more comprehensive programs and services are integrated with employee health benefits plans.

### *Onsite Programs*

Health and wellness programs at IBM locations give employees the ability to manage their well-being without the constraints of arranging appointments, travel, extra expense, and other potential obstacles.

Express Wellness Onsite is a program, offered at select U.S. sites, that provides important health screenings for cholesterol, blood pressure, glucose, body fat percentage, and bone density, as well as wellness coach consultation and goal setting.

### *Online Programs*

Through online programs, employees can access health and wellness programs without leaving their office or home.

In the United States, employees can use the Virtual Fitness Center (VFC), an online tool, to help make physical fitness a part of their daily lives. Accessible 24 hours a day, 7 days a week, from any computer with Internet access, the VFC enables employees to set goals, track their activity and chart their success, and stay focused on fitness goals year-round.

The Health and Wellness Companion is an interactive online health information tool that employees can use to make informed choices about their health. They can learn about prescription and nonprescription medications, evaluate their health risks, and discover ways to improve their health, including better nutrition, stress management, and maintaining a healthy weight.

### *Employee Assistance Programs*

IBM believes that emotional well-being is just as important as physical health. Employee assistance programs (EAP) are available to help employees manage the stress associated with work and life priorities.

In 2001, IBM piloted an EAP for more than 3,000 employees in India. Among the focus areas for the program are managing change, grief and bereavement, marriage and family problems, depression, integrating work and life, and managing personal stress. Beyond printed materials, key deliverables have included orientation programs,

face-to-face counseling, telephone counseling, and referral services. The program has been successful and enhancements are currently under way. IBM Japan and IBM China also recently added EAP programs, which provide an in-house approach and use a team of local counselors to assist employees.

### *Conditions Management*

Living with a chronic condition can be challenging and costly. In the United States, for employees and their family members enrolled in certain health plans, IBM offers the Care Advantage condition management program to help those with asthma, congestive heart failure, coronary artery disease, depression and diabetes better manage their health. Services are offered at no cost and are completely voluntary.

Program participants work with a personal Care Manager, who provides support based on the individual's specific medical condition and needs. The program also offers direct, toll-free access to a professional clinician 24 hours a day, seven days a week. To date, there are more than 15,000 employees and their dependents participating in the IBM Care Advantage program.

By helping people receive better care management for their conditions, we also help them prevent complications, improve their quality of life, and enhance productivity at work, at school, at home and in the community.

### *Stress Management*

We take the issue of preventing and managing stress seriously. IBM's Global Stress Management program includes a stress intervention Web site, online manager stress intervention training, and location-specific stress management resources. Should those efforts need augmenting, additional tools are generally available through health benefits programs, which range from major benefits plans to services that specifically address mental health.

Several IBM locations in Europe offer Team Well-being interventions, which help organizations or teams assess their specific causes of stress and take action to reduce them. For example, IBM Germany offers a stress management program that is adaptable to all types of work situations, with a particular focus on the needs of mobile workers. The program includes training for managers on how to help their employees cope with stress, as well as education for employees on managing stress. Learning offerings are available in person and on demand through the IBM intranet.

## DRIVING SAFETY

Driving safety has been an ongoing priority at IBM. Driver safety programs have been deployed in many countries, including the United Kingdom, France, Italy, Mexico, Spain and the United States. Since the U.S. program was enhanced in 2000, motor vehicle accidents among the company's fleet drivers have significantly decreased from seven accidents per 100 vehicles in 2000 to four accidents per 100 vehicles in 2003. Furthermore, the accidents that did occur following the training program resulted in much less severe personal injury. In 2000, personal injury associated with motor vehicle crashes accounted for 15 percent of the company's workers' compensation experience, compared with only 4 percent in 2003.

## Cleanrooms

As noted in IBM's last Corporate Responsibility Report, questions have been raised about possible adverse health effects associated with chemicals in semiconductor and disk drive cleanrooms. Lawsuits have been filed by current and former IBM employees and others in the northeastern United States, California and Minnesota against chemical suppliers and, in some cases, against IBM. While IBM sympathizes with anyone who develops a serious medical problem, and addresses questions like these very seriously, the company believes that these lawsuits are without merit.

In two cases involving former employees with cancer, tried together in California, the jury unanimously found in IBM's favor. All pending cases in California have been resolved.

IBM is always concerned about maintaining safe and healthful conditions in its facilities. Reviews of operations are routinely conducted to ensure that the use of chemicals in cleanrooms and other areas is being properly managed, that employees are well-informed about the substances present, and that they follow safety procedures.

## Incentives to Health

A key component of IBM's investment in employee health is prevention. To encourage employees to maintain healthy lifestyles, IBM provides incentives for doing so.

In the United States, IBM offers a Healthy Living Rebate program. During the annual health benefits enrollment period, employees who certify that they don't smoke — or if they do, are willing to participate in an IBM-sponsored smoking cessation program — can receive a \$150 cash rebate.

An additional \$150 rebate is available for employees who participate in a regular routine of physical activity and log their performance online through a Virtual Fitness Center.

So far, these incentive programs have produced impressive results. More than 9,000 employees and spouse/domestic partner smokers agreed to participate in the 2003 smoking cessation intervention. Program quit rates were impressively higher than national norms.

More than 97,000 employees elected to participate in the 2004 Physical Activity Rebate program, leading to a 500% increase in monthly Virtual Fitness Center use. More than 50,000 rebates have been earned.

In other countries where IBM has a sizable number of employees, similar programs are being designed to encourage healthy behaviors, with attention to local health issues and culture.

## Work/life Balance

In today's competitive business environment, employees seek jobs that not only offer financial security, but also have autonomy, meaning and the opportunity for development and advancement. They also want time to pursue personal interests and enjoy time outside of the workplace.

Responding to these needs is nothing new for IBM. More than two decades ago, IBM launched the first national corporate childcare initiative that evolved into a five-year, \$25 million IBM Funds for Dependent Care Initiative to help employees' work- and personal life-balance needs. The program enabled IBM to invest in more than 400 child and eldercare projects in more than 50 communities. By the late 1990s, the program had expanded and included 1,200 childcare and eldercare projects in 66 communities that led to the creation of 61,000 new "spots" for children or seniors in need of care.

As childcare and eldercare became increasingly important to IBMers, the company responded by creating the Global Work/Life Fund with a five-year, \$50 million commitment. It was the first fund of its type to address employee issues on a global basis. It emphasizes a complete range of dependent care services with the specific intent of increasing the number of women in the workforce and the use of IBM technology by providing IBM computers with age-appropriate educational software to childcare centers. The company is also a major sponsor of SeniorNet, an organization that teaches older adults how to use computers and



is the genesis of Generations On Line, a software program that makes it easier for seniors to use the Internet.

Since 1983, IBM has committed more than \$213 million to dependent-care programs and services around the world, and is frequently recognized by nonprofit institutes, governments and business publications for its commitment to helping employees manage issues of work and life. (A sample listing of awards and recognition is available at IBM's Valuing Diversity Web site: <http://www.ibm.com/employment/us/diverse/>).

## Accessibility

IBM's history of leadership in developing accessible solutions for people with disabilities is backed by a corporate instruction that calls for the company to make its information technologies widely available and accessible to people with special needs.

A worldwide Accessibility Center in IBM Research supports IBM's commitment to accessible software, hardware, documentation and services.

Central to our nondiscrimination policies is a commitment to integrate people with disabilities into the workplace so that they have the necessary access to the facilities and technology to perform their jobs.

The IBM real estate building accessibility team continues to systematically assess all sites globally by priority and to implement upgrades where necessary. During 2004, \$5.3 million was committed to building accessibility projects globally. Among identified improvements: constructing or upgrading ramps, modifying door widths, adjusting heights of telephones and elevator controls, installing visual alarm strobe lights and Braille signs, and modifying showers and closets in some IBM residence facilities.

IBM provides a range of accommodations and assistive devices for employees who have disabilities, including:

- *Constructing ramps, power doors, parking facilities and other accommodations to provide access for people with impaired mobility.*
- *Captioning videotapes and providing sign-language interpreters and note takers for classes and meetings for employees who are deaf or hard of hearing.*
- *Recording company publications on audiocassette for employees and retirees who are visually impaired.*
- *Providing travel assistance for employees with mobility impairments.*

- *Providing adaptive services or modifications— such as screen readers, display-screen magnifiers, keyboard guards, real-time captioning of meetings and Webcasts, and telecommunications devices and telephone amplifiers— to enable people with disabilities to use work-related equipment.*

In addition, IBMers can use Accommodation Assessment Teams to assist with requests for accommodation. A team member consults with an employee to help identify potential accommodations, assess their effectiveness and— taking into account the employee's needs— advise management on accommodation.

Two new IBM Accessibility Center developments can also provide IBM employees with disabilities with enhanced assistive technology tools and options:

**Home Page Reader v3.04**, provides employees with disabilities with a range of new capabilities, including the ability to read accessible, tagged PDF documents and Macromedia Flash content, and a new zoom feature that enlarges everything on a Web page.

**aDesigner** is a disability/barriers simulator that helps Web designers test the accessibility of Web pages for people who are visually impaired. The software program is now available on IBM alphaWorks for download.

## Ergonomics

Portable computers— from laptops to the handheld variety— and miniaturized communication devices— such as cellular phones and other new technologies— are being used almost everywhere today. With the growing popularity of these remarkable new tools, the term “office work” has lost much of its original meaning. Today, an IBMer's work can be performed virtually anytime and anywhere.

There are important considerations to this trend, in terms of how it can affect comfort, productivity and well-being. IBM provides guidance to help employees assess their work environment and to teach them how to safely and correctly arrange it to suit their individual needs and the kind of work they do. Advanced training and professional support is provided by qualified well-being professionals.

IBM's ergonomics program for remote and mobile workers continued in 2004 with a focus on communicating the availability of ergonomic accessories to our employees as well as continuing an education campaign on healthy computing practices and behaviors worldwide.



## Workforce Relations

IBM and its employees continue to maintain strong relationships based on fairness, open communication and mutual respect. The company places a premium on understanding and responding quickly to employee concerns, and has established several formal channels, which are detailed in the report on communications and collaboration.

Throughout the company's history, IBM has respected the rights of employees to organize, and has made managers at all levels aware of those rights. It is our long-standing belief, however, that the interests of IBM and its employees are best served through a collaborative work environment with direct communication between employees and management. IBM endeavors to establish such favorable employment conditions, to promote positive relationships between employees and managers, to facilitate employee communications, and to support employee development.

Of course, IBM complies with legal requirements worldwide regarding employee and third-party involvement.

IBM is committed to act responsibly with respect to the treatment of employees wherever we do business — either directly or in conjunction with others. IBM does not tolerate child labor or forced labor in its own operations, or in those of its suppliers or contractors.

For additional information about IBM's policies relating to human rights and treatment of IBM employees, please see IBM's Global Employment Standards policy in our report on IBM's management system. Additional information about our commitment to standards of behavior with regard to suppliers' employees can be found in our report on our supply chain.

## Awards and Recognition 2003–04

Over the years, IBM has been recognized as a leader in employee well-being and safety by a number of organizations. A sampling of awards and recognition for the past two years includes those found in the following table.

LOCATION	NAME OF AWARD	ORGANIZATION GIVING AWARD	REASON
Europe	European Year of Disability Award	European Commissioner for Social Affairs	Leading-edge assistive technologies, commitment to the employment/integration of people with disabilities, and supporting the transformation of customers into accessible on demand governments and businesses.
Germany	The European Campaign for Safety and Health at Work Award	The European Campaign for Safety and Health at Work	Leadership in the prevention of work-related psychosocial risks, raising awareness of the subject across Europe, and promoting the identification and exchange of effective preventative practices.
Zurich, Switzerland	2004 Zurich Prize for the Promotion of Health and Well-Being at Work	Institute of Social and Preventive Medicine at the University of Zurich	Integration of the promotion of health and well-being in the company's policies and commitment to a sustained effort in this area.
Hungary	Healthy Workplace Certificate	Board of Governors American Chamber of Commerce in Hungary	High-quality occupational health services, optimization of workplace and environmental factors, first-aid education, joining and supporting volunteer health programs, and promoting a smoke-free work environment.
Singapore	HEALTH Silver and Bronze Awards	Government of Singapore Health Promotion Board	Leadership in the area of health and wellness.
Yamato, Japan	Excellence Award	Kanagawa Labor Bureau	Health-promotion programs.

## Awards and Recognition 2003 – 04 (continued)

LOCATION	NAME OF AWARD	ORGANIZATION GIVING AWARD	REASON
Guadalajara, Mexico	Premio Jalisco “Excelencia en Seguridad e Higiene” (Jalisco Award for Excellence in Safety and Hygiene)	Government of State of Jalisco	Excellence in safety and hygiene, awarded for two consecutive years.
United States	Best Practices in Workers Compensation	Risk and Insurance Magazine	Ongoing results through innovation in teaming and through the use of technology and process improvement over eight years.
	Corporate Health and Productivity Award	Institute for Health and Productivity	Demonstrating the relationship between health and productivity and their improvement through intervention initiatives, cultural and environmental changes and measurable outcomes.
	Pinnacle Award for Best Practices in Plan Design	Consumer-Directed Health Care Conference and Exhibition	Best practices in innovative, preventive health-based approach to health care plans. Specifically: 1) incentives for smoke-free behavior and support for smoking cessation; 2) expert help in managing chronic disease; 3) “deductible-free” preventive care as part of our health plan design; 4) technology-based information and tools to support informed health care decision making.
	Employer-Based Disease Management Leadership Award	DMAA (Disease Management Association of America)	Leadership in the design and implementation of disease management programs for employees.
Rochester, Minnesota Austin, Texas	Psychologically Healthy Workplace Award	Minnesota and Texas Psychological associations	Commitment to workplace well-being and creation of a psychologically healthy workplace for employees, including employee involvement, family support, employee growth and development, and health and safety.
Tucson, Arizona San Jose, California	OSHA VPP Star Awards	Arizona Division of Occupational Safety and Health (ADOSH) and California OSHA	OSHA’s highest award for exemplary occupational safety and health programs.

## WORKFORCE DIVERSITY

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*As we move into the 21st century, the issues surrounding diversity mandate that this subject now be addressed on a global scale— from the workplace to the marketplace.*

That is why IBM has created an innovative global strategic framework for this new era of diversity, which will help us address the emerging issues taking shape in the 174 countries where we do business.

Our long-standing commitment began as far back as 1899, when one of the precursor companies to IBM hired its first Black and women employees—decades before the U.S. government established equal opportunity legislation.

One hundred and five years later, IBM understands the importance of diversity in its many dimensions. Today, workforce diversity is much more than good social policy for IBM. Like many other areas of corporate responsibility, employee, supplier and client diversity are woven into the fabric of our global business strategy.

Having a workforce that closely mirrors the marketplace allows us to better understand and serve the needs of an increasingly diverse customer base. A diverse workforce also allows us to have a broader view of the world and to identify issues that truly matter. And the unique perspectives that diverse employees bring to IBM enable creative approaches and innovative solutions for ourselves, our customers and our communities.

IBM's commitment to diversity is global, as are its business operations and employee base. Because of this, we are continually faced with challenging questions. For example, how do we correct generations of legalized discrimination of people of color in some parts of the world? What's the best way to integrate women into business in countries where they're not allowed to drive or pursue higher education? Should we offer benefits for domestic partners in countries that do not prohibit job discrimination based on sexual orientation? That question is just as important abroad as it is in the United States, where our headquarters is based and where in 36 states it is not illegal to fire a person based on his or her sexual orientation.

These aren't easy questions and there aren't easy answers. But this hasn't stopped us from tackling a wide array of diversity issues—from sexual harassment, to discrimination based on religion, to accommodating the needs of people with disabilities and individuals who need time off to care for a family member.

We recognize that as one of the world's leading institutions, IBM sets an example. And through our commitment and leadership on diversity-related issues, we know we are making a difference.

## HERITAGE OF DIVERSITY AND PROGRESSIVE POLICIES

Workforce diversity is firmly rooted in the company's heritage. Highlights from our evolutionary journey include:

1911

Incorporated as Computing-Tabulating-Recording Company (C-T-R), based in New York City, with 1,300 employees.

1914

C-T-R hires its first employee with a disability.

1924

C-T-R changes its name to International Business Machines Corporation, or IBM.

1924

The first IBM Quarter Century Club recognition program, honoring employees with 25 years of service, included three women and one Black man.

1935

IBM declares men and women will do the same kind of work for equal pay.

1937

IBM establishes a paid vacation schedule for employees.

1943

Ruth Leach appointed as vice president, the first woman at IBM to hold that position.

1944

IBM becomes the first company to support the United Negro College Fund.

1953

Formal equal opportunity policy established.

1962

IBM is one of the first companies to join President Kennedy's Plans for Progress program, which promotes equal employment opportunity.

1972

Adoption assistance provided.

1975

IBM, General Motors and the Rev. Leon Sullivan enlist major American corporations to enforce peaceful change in South Africa.

1975

First year a majority of IBM revenues come from outside the United States.

1980

Flexible work schedules introduced.

1982

The IBM Child Care Referral Service is established, becoming the first national childcare resource and referral service.

1984

IBM adds sexual orientation to company policies regarding nondiscrimination.

1988

IBM establishes the Elder-Care Consultation and Referral Service, the first national corporate program to address eldercare issues.

1991

IBM announces \$25 million Funds for Dependent Care initiatives to increase the availability and quality of dependent care programs and resources.

1996

IBM announces Domestic Partner benefits for gay and lesbian employees.

1997

Regular part-time work options introduced.

2001

Global Work/Life Fund announced with a five-year, \$50 million commitment, to address employee dependent care issues on a global basis.

2002

Sandra K. Johnson named IBM's first Black woman member of the IBM Academy of Technology, which comprises IBM's most accomplished technologists from across the company.

2004

Working Mother Magazine recognizes IBM as one of the 100 Best Companies for working mothers for the 19th year in a row, and honors IBM as one of the top 10 companies for the 17th year in a row.

## Global Diversity

As an international company with local management, IBM addresses diversity issues that are representative of local priorities and experience.

Issues vary across regions, as well as from country to country. For example, in Europe, Latin America, the Middle East, and Africa, IBM's policies and practices are mindful of gender, people with disabilities, and the growing awareness of ethnic minorities. In Asia Pacific countries, IBM is putting increased focus on issues related to gender, disability, and respecting and valuing differences among countries and regions.

What's known as "the glass ceiling" for the advancement of women in business is a growing concern in Japan and Sweden. An issue surfacing in Australia is the fair treatment of gay, lesbian, bisexual and transgender people. In Canada, there's a focus on expanding education and workplace opportunities for Aboriginal people. In France and Ireland, the acceptance of people with different ethnic backgrounds is an issue that's coming to the fore.

IBM's global commitment to diversity is managed locally in each of the countries where IBM does business. Each of our country general managers is held accountable for results on the following Global Workforce Diversity Imperatives:

- Global Marketplace
- Commitment to Equal Opportunity
- Advancement of Women
- Diversity of Leadership Team
- Cultural Awareness /Acceptance
  - *Ethnic Minorities*
  - *Multilingualism*
  - *Individual Differences*
- Integrating the Workplace and the Marketplace
  - *People with Disabilities*
  - *Gay, Lesbian, Bisexual, Transgender*
- Work/Life Balance
  - *Culture*
  - *Flexibility*
  - *Dependent Care*

The common theme among the seven imperatives is removing barriers so that IBM can be a great place to work and do business with.

To effectively compete in today's global marketplace, IBM's workforce should reflect the changing diversity of its customers and suppliers. We also need to understand and comply with increasing and more complex diversity-related legislation around the world.

Our focus on the advancement of women and the diversity of our leadership team helps ensure that all employees have an opportunity to develop into successful leaders. Attention to cultural awareness and to the inclusion of people with disabilities and gay, lesbian, bisexual and transgender people in the workplace helps provide an environment free of discrimination and harassment. Finally, we recognize that employees have commitments outside work and that we must help them manage these responsibilities along with their work obligations.

## Training

Globally, IBM conducts training sessions in a variety of diversity-related subject areas. For example, "Shades of Blue" is a learning experience for managers to develop competencies for engaging in business across cultures. Consisting of online learning followed by a two-day face-to-face workshop, the program combines presentations, group discussions, role playing and videos to build understanding and skills for multicultural engagement.

IBM also offers "QuickViews" and "Learning Clusters"—online programs—to educate managers on the issues of diversity, inclusive leadership and sexual harassment. The materials include interactive learning modules, simulation models to apply what's been learned, recommendations for in-depth learning, testimonials from IBM executives, and self-assessment tools to give managers the ability and confidence to conduct business in a diverse marketplace with a diverse workforce.

All new managers in IBM worldwide take part in our Leading@IBM management training, which includes a dedicated diversity module. In 2004, this session amounted to approximately 13,600 hours spent on learning and discussing the issues of diversity in the workplace and the marketplace.

Additionally, all IBM managers are encouraged to complete a dedicated, two-day diversity learning lab at least once during their careers. Employees are encouraged to attend a one-day learning lab. In 2004, this amounted to approximately 21,169 hours for managers and 5,261 hours for employees.

## Executive Task Forces, Councils and Network Groups

In 1995, IBM orchestrated one of the most important changes in workforce diversity strategy when it established eight Executive Task Forces in the United States to address the needs of different constituencies: Asian, Black, Hispanic, Native American, Gay/Lesbian/Bisexual/Transgender, People with Disabilities, Men, and Women. Today, these task forces are present in numerous countries where IBM does business.

Each task force is chaired and staffed by executives from the respective constituency. They are charged with looking at IBM from the perspective of the constituent's interests and making recommendations about how IBM can:

- *Make that group feel welcomed and valued.*
- *Partner with that group to improve its productivity.*
- *Influence buying decisions of that group in the marketplace.*
- *Develop a relationship with outside organizations that represent that group.*

IBMers can also connect to further diversity initiatives through the company's 72 Diversity Councils and 167 Diversity Network Groups. These groups help women and other multicultural employees meet, mentor and coach, and further develop professional skills. They also promote community outreach programs and drive social, cultural and educational events.

**IBM Diversity Councils** are management-directed teams covering specific geographies or sites that work to increase the focus on local or unique diversity issues. Through these councils, IBM develops a culture that visibly encourages and values the contributions and differences of employees from various backgrounds.

The objectives of Diversity Councils include:

- *Heightening employee awareness*
- *Increasing management sensitivity*
- *Encouraging the effective utilization of IBM's diverse workforce*

The objectives are accomplished through key initiatives such as mentoring, education and diversity recruiting programs.

In the United States, IBM participates in a number of national career conferences that are specifically designed to attract a range of minority constituencies. These annual conferences draw thousands of university and experienced professional candidates from around the country, with a focus on technical and scientific disciplines. Among the leading conferences we participate in:

- **AISES** – The American Indian Science & Engineering Society
- **HENAAC** – Hispanic Engineer National Achievement Awards Conference
- **MAES** – The Society of Mexican American Engineers & Scientists
- **NBMBA** – National Black MBA Association
- **NSBE** – National Society of Black Engineers
- **SHPE** – Society of Hispanic Professional Engineers
- **SWE** – Society of Women Engineers
- **WTI** – Women in Technology International
- **WOC** – Woman of Color in Technology

In addition, every year, IBM and Career Communications Group sponsor several programs to help close the Digital Divide, such as Black Family Technology Awareness Week in February; and La Familia Technology Awareness Week and Native American Family Technology Journey in the fall. IBM also partners with Women in Technology every summer to host EXITE Camps (Exploring Interest in Technology and Engineering) for middle-school girls.

**IBM Diversity Network Groups** consist of IBM employees who voluntarily come together with the ultimate goal of enhancing the success of IBM's business objectives by helping their members become more effective in the workplace. This is accomplished through:

- *Meeting and teaming*
- *Networking*
- *Mentoring and coaching*
- *Doing community outreach*
- *Planning and implementing social, cultural and educational events*
- *Developing professional skills*
- *Enhancing recruitment and welcoming*

The focus of a Diversity Network Group is typically consistent with one of the constituencies that make up IBM's diversity task forces (i.e., Asian, Black, Gay/Lesbian/Bisexual/Transgender, Hispanic/Latino, Native American, People with Disabilities, Men, and Women).



## Government Requirements

While IBM has historically been ahead of the curve when it comes to legislation on diversity, we are still subject to affirmative action and equal opportunity audits from governmental agencies. Significantly, IBM has never failed a single one of its 670 audits since the inception of the Office of Federal Contract Compliance Programs was formed in 1965.

In the tradition of applying our expertise in one area to serve another, IBM's Global Equal Opportunity Project Office is leveraging experience gained working with U.S. compliance groups to address a growing number of new or similar issues overseas. For example, Canada, the European Union, the Republic of South Africa, and countries in the Asia-Pacific region have all recently enacted equal opportunity legislation that affects 68 countries where we do business.

More than two dozen countries require equal opportunity reporting. In South Africa, the government is paying particular attention to citizens of color who have been disadvantaged historically. In Japan, the focus is on women and people with disabilities. The Canadian government audits the way companies deal with visible minorities and women. India has enacted legislation that ensures equal pay among the genders. And Brazil has enacted legislation concerning people with disabilities.

IBM seeks a leadership role on diversity issues in each country where IBMers are represented. The priorities may carry different implications in local cultures and settings, but the focus on these issues as part of the day-to-day operations of doing business in and with IBM remain a global imperative.

## Diversity as Strategy

Just as IBM was one of the first companies to make diversity a moral imperative, we were also a leader in making diversity a strategic imperative and a cornerstone of our business strategy.

A current strategic goal for IBM is to significantly increase business with small and medium-size businesses (SMBs). IT analysts estimate the global SMB market segment for information technology is more than \$300 billion and is growing at a compound annual rate of about 7 percent.

A substantial portion of those companies are run by women. In Japan alone, women own 60,000 businesses. This represents a significant business opportunity for IBM.

In the United States, 13,570 businesses owned by women or minorities employ at least 100 people and have revenue in excess of \$20 million. Again, this is a major market segment for IBM.

Another goal of growth is the global public sector. In the United States and Canada, many government contracts are dependent on compliance with regulations and guidelines on diversity. Other governments, such as the European Commission, are considering incorporating diversity requirements in their requests for proposals and contracts. Our well-established diversity policies and programs give us a competitive advantage in this arena.

From another business perspective, IBM's supplier diversity program helps increase purchasing opportunities and contracts with diverse businesses in all areas of IBM's procurement, contracting and marketing programs. IBM is one of 12 companies—and the only company in our industry—that buy more than \$1 billion a year in products and services from businesses run by women and minorities.

### WORKFORCE STRATEGY

Just as market strategies require IBM to be alert to issues of diversity in buying and providing services and products, workplace and workforce strategies must also address the real issues faced by IBMers—particularly for a company whose brand is reflected in its employees' expertise far more extensively than in its products.

For example, women today make up 28 percent of the company's workforce. This is an admirable statistic, particularly for the IT industry. One might conclude that IBM fulfills its moral and legal obligations when it hires, trains and promotes women. And we do.

But these efforts have brought on a new challenge: addressing the pressures on working women who are also mothers. Growing numbers of mothers are single parents or part of dual-income households; like other employees, they usually want to advance in their careers. At the same time, they want to make sure that, while they're working, their children are receiving good care.

That's what prompted IBM 21 years ago to pioneer its corporate childcare initiative in the United States so that employees would have immediate access to childcare experts. This was followed in 1988 by eldercare services; more often than not, women assume responsibility for taking care of older relatives. In 1990, IBM created its Funds for Dependent Care Initiatives to increase the availability and quality of dependent care programs and to provide referrals to senior housing, meal delivery and transportation services.

IBM has committed more than \$200 million since 1982 to dependent care programs, making sure employees' children enjoy proper care while their parents are at work or that employees have the eldercare services they need to take care of older parents.

This is not an issue just in the United States. We have found through employee surveys and other feedback channels that childcare and eldercare are increasing concerns worldwide. In response to these concerns, the company is financing a global work/life fund. From 2001 to 2006, IBM will spend \$50 million from this fund—of which, 60 percent will be spent outside the United States.

To accommodate both women and men who have families and other responsibilities, which may require attention during traditional work hours, IBM offers flex-time and parental leave.

WOMEN IN THE IBM WORKFORCE 2003

	AMERICAS	ASIA PACIFIC	EUROPE MIDDLE EAST & AFRICA	TOTAL WORLDWIDE
Total Women	31.1%	23.9%	25.9%	28.2%
Women Managers	27.7%	17.3%	18.3%	23.2%

For more on the diversity of IBM's U.S. workforce, see *Employment data for U.S. locations, 2000-2004* on IBM's *Valuing Diversity Web site*: [www.ibm.com/employment/us/diverse/employment\\_data.shtml](http://www.ibm.com/employment/us/diverse/employment_data.shtml).

## Awards and Recognition

In 2004, IBM received worldwide acknowledgment by a number of organizations for its commitment to diversity:

- Working Mother 'Top 10' for record 17th consecutive year
- #1 on the National Society of Black Engineers 50 for eighth consecutive year
- Human Rights Campaign "Perfect 100" on quality index for third consecutive year
- Singapore Family Friendly Employer Award
- Named one of top 10 best companies for women in Brazil
- Diversity Inc.'s Top Companies for diversity list for third consecutive year
- Named best company for equal opportunity in Czech Republic
- Three-time Catalyst winner
- Helen Keller Award
- Women in IT Award by British Computer Society
- Ranked top of Nikkei worker-friendly companies in Japan
- Top 25 list by National Association for Female Executives for five years
- Germany awarded first prize for equal opportunity by Ministry of Trade
- Women of Color Technologist of the Year in India
- Named one of top 10 outstanding enterprise for people with disabilities employment by government in China
- Several Women of Technology Institute Hall of Fame winners
- Outstanding 50 Asian Americans in Business
- Top Business Women in Spain

Visit IBM's *Valuing Diversity site* for a complete list of awards and recognition IBM has earned in this area over the past decade: [www.ibm.com/employment/us/diverse/awards.shtml](http://www.ibm.com/employment/us/diverse/awards.shtml).

## LEARNING AND OPPORTUNITY

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*IBM's greatest asset* has always been the expertise of the people behind our products and services, which is why we long ago established a heritage of developing the knowledge and skills of our employees, managers and executives.

Given the shifts in our business portfolio over the last few years, however, a culture of learning for our employees has never been more important than it is today. And, as our business has evolved, so has our approach to people development. Throughout our business, IBMers must combine deep industry insight with advanced technology to help our clients transform the performance of their own businesses. IBM's learning programs and employee opportunities are designed to give IBMers the capability and the chance to perform that transformation for our clients and for our own company.

With a company investment of almost three-quarters of a billion dollars on training and development annually, IBMers have access to thousands of learning solutions, which provide just-in-time learning wherever they are, whenever they need it. Globally, employees spend an estimated 17 million hours each year engaged in formal training—either online, in a collaborative space, through experiential learning activities or in a traditional classroom. Many of our programs provide a blend of learning solutions, allowing employees to take training in the way that works best for them. IBM conducts half of its employee training via e-learning, which has helped the company save over \$750 million during the past two years and meet the needs of an increasingly mobile workforce at the same time.

### STRATEGY FOR GROWTH

In IBM's long-term strategy for learning and for growing the capabilities of our employees, we study emerging technology and business trends, identify skills becoming less valued in the marketplace, and seek to upgrade them with the skills most in demand. In addition to examining the general work-related competencies common to all employees, we determine those competencies required by our sales and technical staff teams. (A competency is defined as any demonstrated characteristic or behavior that differentiates an outstanding performance from a typical performance; it can vary depending on a person's given job, role or organization.)

IBM's process for identifying these competencies enables employees to gain the expertise they need in emerging areas and to reposition themselves within a growing and changing marketplace. It also helps IBM be more successful in redeploying employees, shifting them from work of less value to work that is aligned with the company's strategy and our clients' own goals.

## People Development

At the core of IBM's learning culture is a focus on client success, innovation and trust. Our programs are structured to help IBMers develop the skills that are most in demand in the marketplace, giving our employees—and IBM—a competitive advantage. But this isn't random, nice-to-have self-improvement. These investments are supported by a methodology designed to move people along a development continuum, so that as demand declines for certain skills in yesterday's technologies, applications or platforms, we focus and invest in the market-valued skills IBMers will need now and in the future.

### CONTINUAL LEARNING

To enable ongoing development, to address an immediate need, or to prepare employees for another opportunity, IBM provides access to thousands of personalized development solutions and pushes personalized learning right to the computer's desktop. Employees can then track and manage the specific activities that are the most meaningful for them.

Our new-employee program—Your IBM—sets the stage by providing new hires with a learning continuum and action plan to help them gain the knowledge needed to understand our company and culture, navigate through the organization and develop strategies for success. With emphasis on overcoming the unique challenges of first-time employees, Your IBM received a “Best Practice” citation from the American Society of Training and Development (ASTD).

Building off that start, IBMers can take advantage of a variety of opportunities designed to challenge them and deepen their expertise. From “stretch” assignments, to mentoring, to e-learning, to online simulations, IBM provides a rich culture in which the lines of career development and work are blurred, creating a continual learning environment. And to further facilitate performance, leadership programs enable managers to become more effective leaders, so they in turn can enable the career growth of their individual team members.

According to our strategy, IBM's learning programs should cover the spectrum from the new employee to the seasoned executive, providing opportunities for every IBMer—because effective, ongoing development is an integral part of working for IBM.

## Leadership Development

In today's matrixed global companies, a corporation's strategy and direction can be set by a handful of leaders. But for those strategies to be executed with speed and precision requires leadership at all levels and at all times—as people collaborate without regard to organizational or geographic boundaries, and traditional reporting structures are supplemented by ad hoc teams of individuals who come together “virtually” to create, innovate, build and deliver customer solutions.

IBM's management and executive development programs and tools are unparalleled. In addition to the internal accolades from program participants—one manager commented that “Basic Blue made me a fundamentally different person”—our leadership development programs have been recognized by a variety of industry organizations.

**Role of the Manager@IBM**, a revolutionary two-year program that finished in 2004, mobilized managers into global, virtual teams to identify and resolve pressing business issues. Since the program started, IBM has initiated major changes in the way we do business and the way our people make decisions. In fact, partly due to feedback from managers during this program and to reflect IBM's values, we overhauled our performance management and bonus programs to make managers more directly responsible for determining the performance ratings and rewards their employees earn. Additionally, IBM people managers are now being assessed on their leadership skills, not just as project or program owners. Role of the Manager@IBM received an “Excellence in Practice” citation from the American Society of Training and Development in 2004.

Role of the Manager@IBM also initiated other changes in response to managers' insights and requests, including the development of enterprise and business unit strategy modules to help managers understand and translate strategy for their employees, and the launch of a manager portal designed to consolidate various manager tools and systems in one place, boosting managers' productivity and people leadership capability.

Following the success of Role of the Manager@IBM, IBM continued its investment in developing leadership capabilities and cultivating our leadership pipeline with **LEADing@IBM**—which will include employees who have the potential to become managers, newly appointed managers and experienced leaders at all levels. Leadership Enablement and Development@IBM (LEADing@IBM)

is the framework announced in 2004 for manager and executive development that builds on our history of strong management development and integrates learning into our leaders' daily work. LEADing@IBM reflects IBM's growing awareness that strong leadership is one of the most important factors in our ability to execute our strategy for growth and create a company based on our values.

In addition to these programs, other IBM programs specifically for manager development include:

**Shades of Blue**, our two-day culture diversity program, received Excellence in Practice citations from ASTD in five categories: Electronic Learning Technologies, Organizational Learning, Performance Improvement, Valuing Differences and Managing Change.

**Advisor** is a patent-pending, intelligent agent that helps managers assess the gaps in their skills and training, and then presents a prescriptive, customized action and development plan to build on those gaps. Advisor won a Copper 2003 Axiem Award, which recognizes the best in all forms of electronic media.

## Employee Opportunity

In the first half of 2004, IBM announced it would enhance key programs and policies to assist employees looking for new job opportunities in the company, with a focus on those who may be affected when the business needs to rebalance skills.

The need to rebalance the skills we have available to our business to meet the demands of our clients and the market has become increasingly urgent. To address the changing dynamics of a global workforce and marketplace, IBM has strengthened its employee redeployment process, which is now designed to identify and assist more quickly employees who may be part of skills rebalancing actions. For example, in many cases in the United States, employees have a few months, rather than 30 days, to locate a new position and gain skills for it.

From April 2004 to mid-December 2004, more than 1,400 employees in the United States had been identified and moved into new positions, with 750 of those employees never needing to use a "formal" HR process. Our EMEA countries successfully redeployed more than 2,200 employees during the same timeframe.

IBM works very hard to attract the industry's top talent and is putting a stronger focus on optimizing our workforce. All areas of our business are working to better develop new skills and to redeploy employees within the company to achieve a balance between talent supply and demand. Part of that effort is the multimillion dollar investment in learning resources we've made to foster skills development for employees, as well as the infrastructure we've put in place to help employees find new jobs and avoid resource actions in the United States.

IBM's internal redeployment processes are designed to make the most of the industry's top talent by reducing potentially wasteful loss of skilled employees whose talents are often needed elsewhere in IBM. These processes also help manage the inevitable changes that take place in a services business as clients renegotiate their requirements.

### HUMAN CAPITAL ALLIANCE

When employees are displaced by global sourcing, IBM provides funding and resources through its Human Capital Alliance to help them develop the skills most in demand. The program focuses on identifying skills gaps to help bridge employees to new opportunities and learning activities by working to advance their expertise levels. In some cases, customized learning plans are created to help employees compete for open positions. This emphasis on market-valued skills helps IBMers—and IBM—to remain competitive as skills needs shift in response to technological advances and marketplace demands.

Beginning in 2004, U.S. employees participating in the redeployment process work with a placement coordinator, a new position that acts as an employee advocate by contacting hiring managers to help place qualified employees in open positions. These employees also have the opportunity to pursue IBM learning to bolster their skills and become more competitive job candidates.

### REDEPLOYMENT AS A STRATEGIC MOVE

This focus on redeployment has caused a ripple effect across other processes, including the way we hire external candidates. New controls assist hiring managers in giving skilled internal employees who closely match their needs preference when filling open positions.

Every business unit has a resource board, which regularly reviews and approves external job postings. All external job postings should target “in demand” skills for growing areas, like high-value services, software, middleware technology, Linux and open standards-based technology.

Geographic-based boards review resources across the brands in their regions. For example, IBM’s U.S. Resource Board looks at the long-term activity across the business units to gauge upcoming shifts in the U.S. marketplace and with clients that may result in a mismatch of skills and needs. This group also reviews and improves IBM practices to help eliminate barriers to allow the flexible movement of employees across the business.

The purpose of these enhancements to our processes and policies is so that managers can take a closer look at our internal skills—especially those affected by skills rebalancing—when filling an open position. By doing this across business units, we hope to better redeploy our skilled employees within the company, reducing involuntary attrition, and allowing managers to rapidly fill open positions with qualified employees already available within IBM.

## Recognition

IBM ranked first overall in Training magazine’s “Training Top 100” for 2004, an annual ranking of companies that “understand, embrace and use training to achieve real business results, support corporate values and enhance the work lives of employees,” according to the magazine. IBM had been ranked fourth overall in the first two years, second in 2003, and is the only company that has been in the top five in the four years the list has been in place. Our programs have been honored elsewhere, as well, for programs covering the spectrum from the new employee to the seasoned executive, and for developing and enabling IBMers at all levels for the opportunities that arise in our business.



## COLLABORATION AND COMMUNICATIONS

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*For most of human history, “work” meant the use of strong backs and dexterous hands. With the Industrial Revolution, labor became specialized, routinized and often mechanized.*

Now, in our information/services-centric economy, work increasingly means applied expertise—especially for an innovation-based company like IBM. The value this delivers is not primarily a physical product, but know-how. And the wealth it builds up is not merely physical capital, but intellectual capital.

Delivering that value—and creating that wealth—depends on access to world-class expertise. And that’s just the beginning. An organization needs to be able to apply, combine and evolve its expertise—and that of its partners, suppliers and even its clients—in a constantly changing marketplace and business ecosystem. And that, in turn, requires a culture of collaboration, communication, continual learning and adaptation.

### On Demand Workplace

IBM’s business model of innovation and our increasingly expert and mobile workforce are redefining the concept of “workplace.”

Consider this: The number of work-at-home IBMers has doubled from 2003 to 2004. In Europe, the Middle East and Africa, more than one-third of IBM employees are mobile workers today—and it could be half by the end of 2005. These changes are dictated by the nature of our work: close partnerships with our clients, and the continuing need for ad hoc combinations of expertise from disparate disciplines in order to create complete,

integrated solutions. The work of innovation today is more and more collaborative, and it must be performed by an increasingly mobile, independent and expert workforce.

Corporate intranets are a powerful solution, strengthening communication and teamwork. IBM’s On Demand Workplace (ODW) is not just a publishing vehicle or a set of productivity tools, but a virtual space to share ideas and expertise, collaborate on projects, and find information relevant to IBMers’ jobs. Today, the ODW provides 24/7 connectivity for more than 330,000 employees, and is read in multiple languages. Most IBMers use it every day, generating more than 730,000 daily page hits to its homepage alone.

The ODW delivers information and resources based on each employee’s role, responsibilities, projects and interests. To date, this real-time access to highly personalized content and tools has yielded an average productivity gain of one to two hours per month for each employee worldwide. IBM managers in the United States report that the ODW’s roles-based content and tools save 40 to 60 minutes monthly, as well. Over time, these are significant productivity savings for individuals and for the company. And the combination of companywide standards and individual personalization makes possible a technology architecture and management system that are dramatically more responsive and integrated—that is, more on demand—than was previously possible with a proliferation of separate Web sites.

That is just part of the way the ODW has reduced enterprise costs and streamlined internal processes. Online collaboration tools have reduced travel and meeting costs by \$4 million annually, while online learning services have eliminated an estimated \$400 million per year in traditional classroom education costs.

However, IBM's On Demand Workplace is not merely about cost efficiency. It is redefining the very nature of a "workplace." As the efficacy of physical spaces recedes, a unified-but-flexible virtual space has emerged that transcends barriers of time and distance, enabling teamwork on a much larger scale than ever before. It's creating a global IBM community in which employees meet, interact and collaborate on projects that can integrate the full scope of IBM's capabilities for clients, and that enable IBMers collectively to shape the future of our company.

## Online Jams

Among the many forms of online collaboration that have been part of IBM's On Demand Workplace for years — from communities of interest, to teamrooms, to instant messaging and more — one has emerged recently that uses threaded discussions, an idea-rating system, and equal access for employees to enable large-scale, enterprisewide discussion, collaboration and decision making. We call these events "jams," and they are to traditional forms of culture change what jazz improvisation is to musical notation.

WorldJam, held in May 2001, introduced this new form of organizational intervention and online brainstorming as an experiment — and more than 52,000 employees participated, generating more than 6,000 ideas for what individual IBMers can do to make their jobs, their work life and IBM itself better. WorldJam was followed by jams to engage IBM's 32,000 managers in a reexamination of their role, and to facilitate the merger of IBM's consulting operations with those of PricewaterhouseCoopers, which IBM acquired in 2002.

In 2003, jams were taken to another level with ValuesJam, in which the entire company collectively discussed, debated and defined IBMers' core values. The result was a new definition of those values for the first time in more than

75 years: dedication to every client's success; innovation that matters, for our company and for the world; and trust and personal responsibility in all relationships.

Then last year, WorldJam 2004 engaged 56,000 IBMers, who contributed 32,000 specific, inspired ideas on actions the company can take to become a living demonstration of our values. Chairman Sam Palmisano and IBM senior management have committed to implementing the top ideas unearthed by the jam, and that work is now under way. Online jams, which began four years ago as an experimental way to capture best practices, have emerged today as a key element in IBM's values-based management system.

## Internal Appeals

Healthy communication is two-way, and it's grounded in trust. There must be venues in which an individual's anonymity and confidentiality can be strictly protected, and a fair system for addressing grievances and disagreements. And for IBMers specifically, trust and personal responsibility in all our relationships is one of our core values.

IBM's Speak Up program, for example, helps IBM to live up to this value. The program gives employees a way to ask questions or express concerns confidentially (even anonymously, if needed) on any company-related subject that may be affecting their jobs. It can also be used to report possible Business Conduct Guidelines violations.

IBM's internal appeals programs include Open Door and Panel Review, which provide ways for employees to raise grievances, objections or other concerns when resolution cannot be reached by working with the employee's management. These programs provide employees formal investigations to achieve fair and equitable resolution.

In addition, Executive Interviews, sometimes called skip-level interviews — meetings between an employee and an executive in his or her organization — offer opportunities for candid discussions on company issues.

## Global Pulse Survey

Managing a company by values, nurturing collaborative innovation and facilitating fluid communication—all demand a fact-based understanding of employees’ perceptions, perspectives and priorities. IBM’s bimonthly Global Pulse Survey measures overall employee satisfaction and specific areas of workplace climate across a random sample of the worldwide workforce.

Survey results illustrating areas of strengths as well as areas that need improvement—along with benchmark data comparing climate at other global companies—help IBM management shape the company’s climate, address employees’ concerns about company direction, and take the necessary actions to be a great employer.

Current trends show IBM’s climate, though mostly stable, is declining in some areas, when compared to 2003. While industry benchmarks reveal a similar pattern, we are working hard to reverse these trends. Recent changes in workforce programs—such as new hire orientation and performance management—address concerns that employees have voiced through the surveys and in companywide jams. Managers are also using survey results to facilitate ongoing discussions with their employees and to identify ways to improve climate at the local level.

GLOBAL PULSE SURVEY  
(Selected questions; percent responding favorably)

TOPIC	IBM	IT	IBM	IT
	2003	INDUSTRY AVERAGE 2003	2004	INDUSTRY AVERAGE 2004
Overall job satisfaction	69%	66%	<b>65%</b>	<b>64%</b>
Clear direction from management	67%	57%	<b>67%</b>	<b>51%</b>
Organizational teamwork	58%	54%	<b>54%</b>	<b>61%</b>
Accomplishments recognized	50%	59%	<b>49%</b>	<b>59%</b>

Results compare May 2003 with May 2004

— OUR WORLD —

## CONTRIBUTING TO COMMUNITIES

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*Since its very beginning*, IBM has mobilized the company's best resources to help solve some of the world's toughest social and education problems.

Today, we continue to utilize our world-class technology, innovative consulting and research divisions, and especially the talent and commitment of our employees, to make a difference in the communities where our customers live and work.

This coordinated effort in corporate philanthropy has produced award-winning initiatives, including Reinventing Education, IBM KidSmart Early Learning, IBM MentorPlace, TryScience, Web Adaptation Technology, TradúceloAhora! (Translate Now) Automatic Translation Project, and Eternal Egypt. These innovative programs are helping to improve student learning, expand access to the Internet to seniors and the disabled, and bridge the digital divide.

In 2003, IBM expanded its community relations efforts and applied on demand to our work in communities. On Demand Community is designed to add more value and support to the dedicated efforts of our employee and retiree volunteers by providing them access to online technology tools and resources to better serve schools and local not-for-profit organizations.

At any time, anywhere in the world, IBM volunteers can now bring our company's innovation and best practices to schools and not-for-profit organizations coping with serious challenges.

In 2003, IBM contributed \$142.8 million at market value in equipment, technical services and cash to not-for-profit organizations and educational institutions worldwide—an increase of \$2.6 million from 2002. The \$142.8 million represents 1.3 percent of IBM's 2003 net earnings before taxes (NEBT). The company's level of giving continues to place IBM among the very top corporate contributors.

Of the total contributed, \$117.1 million, or 82 percent, represents donations of IBM technology and technical services; the rest is cash. Of our giving, 80 percent was donated to education, split evenly between primary and secondary education and higher education. Of the total contributions given by IBM employees to not-for-profit organizations, \$15.8 million qualified as donations eligible in the IBM Matching Grants and Pre-K/K-12 Matching Grants programs. These individual contributions were matched by IBM with \$23.2 million in cash and equipment at market value.

Those employee gifts were in addition to more than \$32 million that employees and retirees contributed to nearly 11,000 health and human services agencies through the IBM Employee Charitable Contribution Campaign (ECCC). Fifty-six percent of IBM's employees participated in the 2003 campaign.

GLOBAL CORPORATE CONTRIBUTIONS  
(\$ in millions)

	99	00	01	02	03
Cash	43.0	39.4	35.6	31.3	25.7
Technology	82.0	64.9	62.2	78.3	73.9
Services	—	21.8	29.3	30.6	43.2
<b>Total</b>	<b>125.0</b>	<b>126.1</b>	<b>127.1</b>	<b>140.2</b>	<b>142.8</b>

GLOBAL CORPORATE CONTRIBUTIONS BY GEOGRAPHY  
(\$ in millions)

	99	00	01	02	03
United States	114.1	110.5	102.3	100.7	99.4
Asia Pacific	1.9	2.5	7.3	12.4	12.5
Canada	1.0	1.8	2.7	7.0	4.3
Europe, Middle East, Africa	6.3	9.9	12.5	16.3	22.1
Latin America	1.7	1.4	2.3	3.8	4.5
<b>Total</b>	<b>125.0</b>	<b>126.1</b>	<b>127.1</b>	<b>140.2</b>	<b>142.8</b>

The figures for 2002 represent a correction in the numbers for Canada, Europe, Middle East, Africa, and Latin America.

## On Demand Community

IBMers have distinguished themselves as committed and generous volunteers. They are part of a corporate tradition that spans generations and is rooted in the earliest days of IBM, when founder Thomas J. Watson, Sr., challenged his employees by word and example to stand for something that went beyond their professional lives. In 2003, thousands of IBMers worldwide contributed millions of volunteer hours to important community causes.

They were supported by IBM's revolutionary new initiative in corporate philanthropy, which was created to increase the impact and value of their extraordinary efforts and to inspire even more IBMers worldwide to contribute their time and talents.

Called On Demand Community, the new initiative provides employees and retirees with on demand access to IBM technology, resources, training and support, designed specifically for volunteer efforts in public education and not-for-profit organizations. The outcome: One

year after its launch in November 2003, more than 30,000 employees and 4,000 IBM retirees in 67 countries have registered with On Demand Community, sharing their skills and know-how with local organizations. Through the On Demand Community Web site, these volunteers have access to more than 150 tools — from science presentations for middle-school kids, to a school-based online mentoring program, to technology plans for not-for-profit organizations — to support their volunteer activities. This first-of-a-kind corporate program also provides technology grants, cash awards, and reduced prices in hardware and software to eligible organizations where employees and retirees volunteer.

The heart of On Demand Community is a corporate commitment to encourage and support volunteerism among employees and retirees who want to create positive change in their communities, whether it's teaching problem-solving skills, closing the digital divide, helping teachers use technology to make classroom lessons come alive, or making it easier for people with certain physical disabilities to access the Internet.

Sharing employees' skills and intellectual capital not only helps schools and organizations do their jobs more effectively, it also reinforces IBM's core values. Though the company's operations span the globe, IBM is first and foremost a local business deeply committed to the cities and towns where its employees live and work.

### SUPPORTING IBMERS WITH ON DEMAND RESOURCES

On Demand Community's intranet site serves as a knowledge bank for volunteering, giving employees and retirees worldwide access to online presentations, videos, Web site reference links, software resources and documents to assist in nonprofit and educational settings. Resources on the site also enable employees to assess their skills and take online training to improve their effectiveness as volunteers. Employees can even tailor their volunteer choices and find resources to match the amount of time they're able to give.



For example, On Demand Community gives IBMers who want to volunteer in their children's classrooms eight technology resources designed specifically for schools. These include dynamic classroom activities, science presentations, student mentoring, supporting school leaders with change management tools, helping teachers with technology and more. Or, for employees interested in volunteering at not-for-profit organizations, there are resources that include technology planning and assessments, project management skills, as well as award-winning software that helps people with visual impairments and other disabilities to better navigate the Web. On Demand Community also provides tools that help parents and teachers learn how to keep young people safe on the Internet, as well as resources that enable university faculty and staff to take advantage of open computing.

IBMers who volunteer through On Demand Community also are recognized for their contributions to the community through IBM Community Grants. This program has been designed to encourage long-term commitments in volunteer engagements. To be eligible, IBM volunteers must work with an eligible community service organization for an average of eight hours per month for five months. IBM employees who volunteer as a group can receive up to \$7,500 in IBM equipment grants for eligible schools and not-for-profit organizations when using On Demand Community resources. Individual IBM employees are eligible for up to \$3,500 in technology grants or \$1,000 in cash awards per year for organizations where they regularly volunteer.

In addition, discounted prices on selected IBM products for qualified schools and not-for-profit organizations help support and extend employee volunteer efforts. On Demand Community gives IBM employees an unprecedented opportunity to leverage their skills and to be recognized for their volunteer activities.

On Demand Community success stories are being shared around the globe. From the rural Chinese province of Guangdong to Australia, across Europe, and throughout North and South America, the fusion of IBM's technology-rich philanthropic programs and talented volunteers is making positive and far-reaching differences for our communities and employees.

## CHANGING THE DYNAMICS OF CORPORATE PHILANTHROPY

When George Westerman, an IBM volunteer, needed to put together a \$4 million capital campaign for a new community center in Ferndale, Michigan, he turned to the Technology Planning tool on the On Demand Community Web site. "The tool started with a comprehensive technology plan and followed through installation and integration into daily business," he says.

The impact of On Demand Community is being felt by thousands of people across the globe on a daily basis. In an economically depressed section of West Philadelphia, Pennsylvania, Lynn Rossiter, IBM Lotus Notes Support, used IBM community grants and the On Demand Community Web site to transform a dilapidated, 80-year-old structure into a nationally recognized computer training center. Jonathan E. Ford, executive director of the center called "Turning the Tide," was part of the team that worked closely with Rossiter throughout the project. "What I remember most is her responsiveness, her drive, her ability to keep searching for answers," Ford says. "She is a gift for us. I cannot adequately thank Lynn and IBM for their contributions."

"The beauty of On Demand Community is that it offers something for everyone willing to give their time and talent," notes Sam Yiu, IBM Australia. Yiu uses the Web site to help assemble IBM Young Explorer units for schools and not-for-profits in his hometown of Sydney.

## World Community Grid

Millions of personal computers sit idly on desks and in homes worldwide. During this idle time, mysteries of science, human health, and space continue to elude us. What if each of the world's estimated 650 million PCs could be linked to focus on humanity's most pressing issues?

To make this vision a reality, late in 2004, IBM and a group of leading foundations, public organizations and academic institutions launched World Community Grid ([www.worldcommunitygrid.org](http://www.worldcommunitygrid.org)). Grid technology joins together many individual computers, creating a large system that far exceeds the power of a few supercomputers. World Community Grid establishes a permanent, flexible infrastructure that provides researchers with a readily available pool of computational power that can be applied on a global scale to very large and complex problems for the benefit of humanity.

IBM Chairman and CEO Samuel J. Palmisano announced World Community Grid on November 16, 2004, as an example of how a new technology—in this case, grid computing—can be applied in an innovative way to have a positive impact on the communities in which we live. In the first month of the initiative, more than 40,000 individuals joined as members, and by March 2005, more than 91,000 devices were part of World Community Grid. The computer cycle time they have donated now exceeds the processing power of a single computer running continuously for a six millennia.

World Community Grid is addressing global humanitarian issues, such as:

- New and existing infectious disease research: researching cures for HIV and AIDS, Severe Acute Respiratory Syndrome (SARS), malaria and others.
- Genomic and disease research: The Human Proteome Folding project—World Community Grid’s first project—seeks to help identify the functions of the proteins that are coded by human genes.
- Natural disasters and hunger: World Community Grid applications can help researchers and scientists with earthquake predictions, improving crop yields, and evaluating the supply of critical natural resources like water.

IBM encourages every individual, as well as corporations, universities and associations, to join as partners. World Community Grid also is looking for potential research projects that would benefit from grid technology. For more information and to download the simple, free software needed to help in these important research initiatives, visit [www.worldcommunitygrid.org](http://www.worldcommunitygrid.org).

## Reinventing Education

Time and time again, raising the quality of education is ranked first on the list of public concerns, but the goal remains elusive. Reforming public education is slow, difficult business. It requires innovative thinking, cutting-edge technology, and the vision and stamina to continue working toward higher standards in teaching and learning.

Launched in 1994, IBM’s Reinventing Education school reform grant program has so far seen three rounds of awards now totaling \$75 million. The program is achieving documented success in raising student achievement, revolutionizing teacher professional development, and creating educational technology that is accelerating student learning.

In the complicated landscape of school reform, where fads come and go, and high-profile programs lose momentum and fade away, this 10-year-old grant initiative is driving higher achievement in classrooms and rewriting the rules for successful school-business partnerships.

More than 90,000 teachers and millions of students are using the educational technology tools created through the grant program in 25 cities throughout the United States as well as in Australia, Italy, Ireland, Japan, Singapore, the United Kingdom, Vietnam, Mexico and Brazil. The program was launched in China in August of 2003.

Reinventing Education has succeeded because it has focused on giving teachers effective tools that help them improve classroom instruction.

Educational technology solutions created during each phase of Reinventing Education are now bundled into one unified WebSphere platform, a comprehensive suite of tools that enables parent-teacher communication, standards-based instruction and teacher professional development. By bundling the technology tools and sharing the results, one grant site is able to leverage the results of another to solve not only its own target issue, but other barriers to school reform as well.

In all, Reinventing Education is addressing such worldwide educational challenges as home-school communication, data management and analysis, classroom instruction, teacher professional development and student assessment.

### ADVANCES IN 2003

IBM continued implementation in 2003 of Reinventing Education 3 grants for teacher professional development, the use of data to improve instruction, and the Reinventing Education Change Toolkit.

Also in 2003, more than 20,000 teachers, university faculty and teacher candidates were introduced to new online tools for collaboration, mentoring and training. By the end of the year, prototypes of innovative software—reflecting the input of IBM’s “co-designers” from 11 school districts and 30 higher education institutions—were introduced into our pilot sites for initial use and further feedback. This unique collaborative design effort will help develop new solutions that are targeted, relevant, immediately useful and easily replicated throughout the nation and then into our Reinventing Education projects around the globe.

Teacher professional development, improved student achievement and innovative technologies that continue to scale up beyond the life of the grant are the key differentiators for long-term educational success, according to a new study issued by the Center for Children & Technology (CCT), a division of Education Development Center, an independent education research organization based in the United States.

“If there is a litmus test for success in education reform efforts, then it is the ability of programs to maintain momentum and scale when the grant funding ends, something few initiatives manage to achieve,” states the report, which identifies IBM’s Reinventing Education grant program as a compelling model for systemic school reform. “IBM’s Reinventing Education sites stand out as exceptions.”

“IBM did it the hard way, and years of research conclude that this long-term commitment is the only way to achieve significant, systemic reform,” says CCT’s senior scientist Robert Spielvogel, the principal author of the study. “The company committed Reinventing Education to the long haul, with dynamic school-business partnerships that far exceeded the customary time frame. They recruited their best talent to the program and demonstrated an unyielding commitment to its success.”

According to CCT, the IBM program represents a “fundamental and radical shift” in the way a private corporation and public schools work together. The IBM differences include:

- *Treating its school partners as valued business partners.*
- *Recruiting expert talent from the company’s research laboratories and consulting divisions to work hand in hand with teachers and administrators.*
- *Identifying school partners that are ripe for reform.*
- *Establishing long-term partnerships to allow time for iterative development.*
- *Remaining flexible: Not one of the solutions that have emerged from Reinventing Education is as originally conceived.*

Also in 2003, an independent evaluation by Dr. Miriam Judge of Dublin City University, entitled “Building a Networked Educational Community: A Case Study for the Dundalk Learning Network and Wired for Learning,” documented the positive impacts of the Reinventing Education Ireland project. Improved teacher confidence and competence in the use and integration of technology as a result of the IBM school reform initiative are highlights of the study. Other results include improvements in the overall learning environment for students, better classroom management, improved teacher communication and collaboration, and stronger links between the home and school communities.

As part of an ongoing effort to expand the reach of our philanthropic education programs, IBM created the Reinventing Education Change Toolkit ([www.reinventingeducation.org](http://www.reinventingeducation.org)). This site and its supporting training programs are an effort to get the best thinking in leadership and management practices in the hands of educators. The Change Toolkit Web site is based upon the work of Harvard Professor Rosabeth Moss Kanter and was created by IBM to help education professionals be more effective at leading and implementing change. By November 2004, the Change Toolkit was being used by more than 4,000 educators in all 50 states in the United States, as well as in 15 countries around the world, including the United Kingdom, Ireland, Canada, Puerto Rico, Mexico, Australia, Thailand, Vietnam and India.

Additional information on Reinventing Education can be found at [www.ibm.com/ibm/ibmgives/grant/education](http://www.ibm.com/ibm/ibmgives/grant/education).

## KidSmart

IBM’s KidSmart Early Learning program, which is providing children a head start on learning with award-winning technology designed specifically for preschoolers, is achieving dramatic results in early childhood classrooms worldwide. Since 1998, IBM has delivered nearly 20,000 of the colorful early learning computers, designed for three- to six-year-olds, to more than 5,500 nonprofit childcare centers serving millions of children in more than 50 countries. Independent evaluations of the IBM program document improvements among the world’s youngest students, including children from low-income communities.

In the United States, both the Bank Street College of Education and the United Neighborhood Houses of New York have conducted studies on the use of computers in the preschool classroom, and both revealed positive results among teachers and students. And a study conducted by researchers from the United Kingdom, Germany, Spain, Italy and France showed “substantial improvements” in teaching and learning by children. IBM’s KidSmart Early Learning program includes the early learning computers housed in a kid-friendly casing, award-winning educational software, teacher training and a Web site at [www.kidsmartearlylearning.org](http://www.kidsmartearlylearning.org) with supporting resources for teachers, parents and kids.

In May 2003, IBM organized the first-ever European Conference on Information and Communications Technologies (ICT) in early education in Brussels, at which policy-makers, researchers and leading practitioners from more than 20 countries met to showcase pioneering work in this field, take part in lively debate, and identify key areas for future policy development. At the conference, Professor Siraj-Blatchford of London University, a researcher with a strong international reputation in this field, described the IBM KidSmart Early Learning Program as “a major catalyst in improving practice” in the use of ICT in early childhood settings across Europe. The conference recommended further policy development in this area, and the conference report with these recommendations was distributed to education ministries, schools and research institutions across Europe.

## Eternal Egypt

IBM’s latest initiative to bring civilization to life through technology is best illustrated through our “Eternal Egypt” project. This extraordinary partnership between IBM and the Egyptian government has created a digital museum providing worldwide access to 5,000 years of Egyptian history. Three years in the making, the Eternal Egypt project has so far produced multimedia presentations, 360-degree image sequences, panoramas of important locations, virtual environments, real-time photos from Web cams and thousands of high resolution images of ancient artifacts that weave together five millennia of Egyptian culture and civilization.

For the first time ever, online visitors to the new Eternal Egypt Web site at [www.eternaegypt.org](http://www.eternaegypt.org) can enter a virtual reconstruction of Tutankhamen’s tomb as it looked the day Howard Carter discovered the chamber in 1922, or view the Lighthouse of Alexandria as it appeared before it was destroyed by a 14th century earthquake. Viewers even can examine the face of the Sphinx as it looked 2,000 years ago.

The Eternal Egypt project, funded by a \$2.5 million IBM grant of technology and expertise, includes three individual components focused on the collection of the Egyptian Museum in Cairo, historic sites throughout the country, and a virtual museum available to anyone, anywhere in the world with Internet access.

The centerpiece of the project is the Eternal Egypt Web site, which includes high-resolution images and three-dimensional reconstructions of the Egyptian antiquities, as well as virtually reconstructed environments, 360 degree images, and panoramic views of present-day Egypt captured by Web cameras at locations such as Karnak Temple in Luxor and Qait Bey in Alexandria.

An innovative, interactive map and timeline guides Eternal Egypt visitors through the country’s cultural heritage, while a “Connections” function permits visitors to explore the complex relationships among the objects, places and characters of Egypt’s past. The Web site is available in English, French and Arabic, with audio narration on demand.

Visitors to the museum also have access to a cutting-edge Digital Guide. Going beyond traditional audio-only tours, the Digital Guide offers a rich, multimedia experience to complement the extraordinary objects on display in the Egyptian Museum in Cairo. Visitors can use the Digital Guide to request specific information about objects, or they can select from a variety of tours, listen to the tour narration on the headset, and view images of objects as they walk through the galleries. The Digital Guide is self-paced and highly interactive, allowing great flexibility in the amount and kind of information that is retrieved by the visitor. All content is provided in English, French and Arabic. The Arabic text-to-speech component represents a first-of-a-kind technology breakthrough.

Visitors to the Temple of Luxor or the Giza Plateau can now access the same information available on the handheld Digital Guide and the Eternal Egypt Web site through any of a wide variety of mobile devices. Cell phones with limited displays, high-end cell phones with multimedia capabilities, or networked personal digital assistants can provide visitors with guided tours and more information. The mobile access portal enables visitors to take tours or to download information to match a particular location or monument.

To learn more about this project, visit [www.eternaegypt.org](http://www.eternaegypt.org) or [www.ibm.com/ibm/gives/grant/arts/egyptian.shtml](http://www.ibm.com/ibm/gives/grant/arts/egyptian.shtml).

## TryScience

Despite extraordinary advancements in science and technology, the number of students successfully pursuing technical degrees is decreasing, especially among women. As early as middle school, many children are choosing not to take rigorous science courses. IBM is committed to reverse this trend by creating programs that promote an early—and hopefully lifelong—understanding of science, technology, math and engineering.

IBM's TryScience Web site is the first online, global science museum that makes it easy and fun for children, teachers and parents to explore the world of science and engineering. The Web site ([www.tryscience.org](http://www.tryscience.org)) offers instant access to information and interactive experiments from more than 600 of the world's finest museums. Features include science experiments, virtual field trips to science centers throughout the world, scientific news updates, real-time live Web cams, and a new teachers section with useful information on how TryScience can be used in the classroom.

More than 3,000,000 visitors from around the world have visited the TryScience site, which is a collaborative effort by IBM, the New York Hall of Science and the Association of Science-Technology Centers. IBM also sponsors the complementary "TryScience Around the World" kiosk donation program in more than 25 countries.

## ¡TradúceloAhora!

Despite its early promise of becoming a global community, the World Wide Web is still primarily in English. For many Hispanics, this means that the Internet and all its promise is beyond their reach. To help close this Digital Divide, IBM has launched an exciting new grant program with nearly three dozen major agencies serving the Latino community. Called ¡TradúceloAhora! (Translate Now) Automatic Translation Project, IBM researchers are now working with Hispanics throughout the United States to refine and perfect translation software that will enable them to translate English content into Spanish accurately on the Web.

The software can translate Web pages from English into Spanish, providing non-English speakers with access to valuable online content, including government services and employment Web sites. The Tomás Rivera Policy

Institute, recognized as the nation's premier Latino think tank, is working with 30 nonprofit organization to gauge how Latinos use translation technology, as well as to learn whether the availability of translation software improves how these organizations help the people in their communities.

You can learn more about ¡TradúceloAhora! at [www.ibm.com/ibm/ibmgives/grant/helping/translation.shtml](http://www.ibm.com/ibm/ibmgives/grant/helping/translation.shtml).

## Addressing Adult Literacy

At more than 100 literacy sites across the United States, adults are now using unique IBM voice recognition software to dramatically improve their ability to read and speak English.

Through IBM's national Adult Literacy grant program, Reading Recognition software is providing emerging readers with the support and practice they need to help them improve their reading and pronunciation skills. Jobs for the Future, a nonprofit organization based in Boston, Massachusetts, will monitor the IBM adult literacy grant program to evaluate how the grant sites are using the Reading Recognition software and to identify "best practices" that can be adopted at all grant locations.

You can learn more about this project at [www.ibm.com/ibm/ibmgives/grant/adult/adultliteracy.shtml](http://www.ibm.com/ibm/ibmgives/grant/adult/adultliteracy.shtml).

## Internet Ease of Use

Many seniors, people with disabilities, and special education students have difficulty taking advantage of the Internet because the Web was not built to suit their particular needs. In an effort to make the Internet more accessible to these individuals, IBM has provided its award-winning Web Adaptation Technology to major nonprofit organizations serving thousands of people around the world. Initially, IBM partnered with SeniorNet and now has extended the program to other agencies, including Goodwill Industries, National Center for Disability Services and the Parent Advocacy Coalition for Educational Rights (PACER). These organizations all receive IBM's Web Adaptation Technology to provide seniors, the disabled and special education students with more effective access to the World Wide Web.



The technology, created by researchers at IBM's T.J. Watson Research Center, assists people with visual impairment by enabling them, among other things, to magnify a Web page, change the color of the text and background, turn off distracting animations and sharpen images to improve readability and Web page navigation.

There is also a text-to-speech feature, which allows for selected words or text to be read aloud. The innovative technology also automatically adjusts for the kind of typing errors typically made by people with tremors, arthritis or other disabilities. Web Adaptation Technology is currently being implemented by 37 different nonprofit organizations in more than 300 locations in the United States, Argentina, Australia, Austria, Brazil, Canada, Colombia, Italy, Mexico, Peru, the Philippines, Singapore and the United Kingdom. It is available in nine languages.

## MentorPlace

IBM MentorPlace ([www.mentorplace.org](http://www.mentorplace.org)) is a volunteer program for IBM employees who want to contribute their talents in local schools—virtually. In collaboration with classroom teachers, IBM mentors work with students on academic activities that reinforce skills and concepts being taught in class. Because of the one-on-one focus of the program, employees can help individual students in subjects where they need it most—math, writing, science concepts and career development—while also letting young people know that there are adults who care about their issues and concerns.

The program provides training and support for volunteers, and matches IBM employees with teachers and their students. It uses a Web-based communications tool that enables IBM mentors to communicate with students in a secure online environment; the tool is currently available in English, German, Japanese, Portuguese and Spanish.

By November 2004, more than 9,000 IBM employees in 26 countries had served as mentors in the MentorPlace program. The program has won awards from such organizations as the Points of Light Foundation and the Calgary Educational Partnership Foundation.

## Higher Education

Globally, the development of technical skills is a priority shared by universities and corporations. IBM collaborates with institutions of higher education in programs around the world to support the development of the technical talent that fuels economic growth. These programs share a common denominator of providing mutual value to academia and industry. IBM centers efforts around four worldwide competitive programs:

- **The IBM Academic Initiative and the IBM Scholars Program** are designed to provide faculty and researchers at higher education institutions worldwide with a wealth of academic and research offerings, resources and benefits. The IBM Academic Initiative provides a set of offerings that help to build IT skills with faculty and students to effectively establish open standards, open source and IBM technologies in higher education. The goal is to dramatically increase the number of graduating students who are aware of, excited about and skilled in open standards and IBM products. The Scholars Program delivers a wide breadth of IBM software, hardware technologies, associated learning materials and curricula, discounts on events, technical support and community resources at [www.ibm.com/university](http://www.ibm.com/university). Its portal contributes to the formation of a worldwide community, with more than 9,000 faculty members representing 4,500 institutions from 100 countries. Six percent of the participating faculty are associated with community or technical colleges, and 3 percent are teaching at secondary schools.
- **The Shared University Research Program** awards equipment to universities and research institutes to support innovation through research collaborations. Projects are designed to foster innovation by addressing problems at the intersection of computing infrastructure and business value. For example, 21 of the 70 awards made in 2003 were in the life sciences arena and were focused on research on some of the leading causes of death around the world: cancer, heart disease and infectious diseases. The researchers use powerful IBM technologies, such as high performance computing, grid infrastructures, data management and visualization technologies.
- **The Faculty Awards Program** recognizes faculty with cash awards in support of exceptional research and skills development. In 2003, the program provided 210 awards to support faculty and their graduate students and research assistants. Beyond traditional research, Faculty Awards enabled the development of relevant IT skills by supporting curriculum development projects and open source/open standards technologies, like the enthusiastic participation displayed by 78 open source Eclipse Innovation Award winners in 2004.
- **The Ph.D. Fellowship Program** supports exceptional doctoral students who are undertaking research in areas being pursued by researchers in IBM's research and development labs. Students receive a stipend, tuition and fee reimbursement, and are assigned an IBM mentor selected from among the company's technical leaders. The majority of the Ph.D. Fellowship students participate in a summer internship with IBM, as well. In 2003, 54 Ph.D. Fellowships were awarded worldwide; 24 of the Fellowship recipients were women.



IBM volunteers support higher education in many ways beyond the corporate awards and skills development programs. They made personal cash contributions to 1,459 colleges and universities in 2003, which were matched by IBM with equipment or cash. Beyond financial support, more than 1,000 IBMers serve as alumni leaders, advisory board members, adjunct faculty, guest lecturers, talent scouts and diversity champions. IBM leads the industry in providing online mentors to college students studying science, math, engineering or technology through its MentorNet program. Volunteers are also active in professional associations and nonprofit organizations focused on underrepresented communities to help improve the diversity of the talent pipeline.

The value of IBM's contributions to higher education through equipment and cash donations totaled \$50 million in 2003.

IBM plays an active role in internal organizations that support diversity in higher education. Examples include:

- *Women in Engineering Programs & Advocates Network (WEPAN), Society for Women in Engineering (SWE), MentorNet advisory board, Institute for Women and Technology (IWT) and its Grace Hopper Conference*
- *Women of Color in Technology Awards Conference*
- *Committee of Women in Science & Engineering (National Academy of Engineering & Science)*
- *BEST blue-ribbon panel on Bettering Engineering and Science Talent in higher education*
- *IBM's Women in Technology and Multicultural People in Technology initiatives*

## Awards

IBM's leadership in community activities continues to be recognized around the world. In 2003, IBM received 15 major regional awards and 78 local awards that recognized community leadership. They include:

- **Excellence in Corporate Community Service from Points of Light Foundation.**
- **2002/2003 Product of the Year Gold Award from National Business & Disability Council for Web Adaptation Technology.**
- **Informática Hoje, the leading Brazilian IT publication, awarded IBM's E-VOLUNTÁRIOS program, ahead of 14 other IT companies that have a presence in Brazil.**
- **2003 Industrial Design Excellence Award for IBM exhibit at Epcot Innoventions at Disney World, Orlando, Florida.**

## ENVIRONMENTAL PROTECTION

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*IBM has a long history* of environmental leadership. The company established a corporate policy on environmental protection in 1971, which is supported by a comprehensive global environmental management system.

IBM realizes how crucial such a policy is. The company's operations can potentially have an effect on the environment in a number of ways. For example, chemicals needed for research, development and manufacturing must be properly managed from selection and purchase through storage, use and disposal. Some processes are energy- and/or water-intensive and IBM continually looks for ways to reduce resource consumption. We design products to be efficient in their use of energy, to contain environmentally preferable materials, and to be capable of being reused, recycled or disposed of safely at the end of their useful lives. Moreover, as IBM has outsourced more of its manufacturing, its greater use of an expanded supply chain has made the environmental responsibility of suppliers and the environmental attributes of their products of central importance.

### Global Environmental Management System

IBM's corporate environmental affairs policy calls for environmental affairs leadership in all of the company's business activities. The policy objectives range from workplace safety, pollution prevention and energy conservation to product design for the environment, continual improvement and applying IBM's expertise to help address some of the world's most pressing environmental problems.

The policy is supported by corporate directives that govern IBM's operations worldwide. These directives cover areas such as chemical and waste management, energy management, environmental evaluation of suppliers, product stewardship, and incident prevention and reporting. Every employee is expected to follow this policy and report any environmental, health or safety concern to IBM management. Managers are expected to take prompt action.

In 1997, IBM became the world's first major multinational to earn a single worldwide registration to the ISO 14001 Environmental Management System Standard. The registration covered IBM's manufacturing, product design and hardware development operations across its business units worldwide. IBM has since expanded its global ISO 14001 registration to include chemical-using research locations. Some IBM country organizations have also obtained ISO 14001 registration covering nonmanufacturing locations.

IBM's environmental policy and more information on the company's environmental management system and programs supporting its environmental objectives may be found at [www.ibm.com/ibm/environment](http://www.ibm.com/ibm/environment).

## Environmental Evaluation of Suppliers

IBM's environmental management system includes environmental requirements for its supply chain. IBM has a corporate directive designed to prevent the transfer of responsibility for environmentally sensitive operations to any company lacking the commitment or capability to manage them properly. In accordance with this directive, IBM conducts substantive environmental evaluations of a relevant subset of its suppliers to focus on their environmental responsibility.

IBM conducts these evaluations for certain production-related suppliers, and all of its hazardous waste treatment and disposal suppliers, and product recycling and disposal vendors worldwide. The suppliers, their facilities and methods are evaluated prior to IBM approving them for use. In order to verify that their environmental operations remain satisfactory, vendors are reevaluated periodically. Any concern during evaluation is addressed with the supplier and must be resolved to IBM's satisfaction. IBM's conformance with these supplier evaluation requirements is part of its comprehensive audit programs.

To address new concerns about recycling operations in the extended supply chain, IBM has expanded the environmental evaluations of its product end-of-life management suppliers to include assessments and onsite evaluations of certain subcontractors they may use to handle recycling and/or disposal operations in countries that are not members of the Organization of Economic Cooperation and Development.

The evaluations described above are in addition to those conducted in conjunction with IBM's Supplier Conduct Principles, which include environmental requirements. As part of its environmental management leadership, IBM also encourages its suppliers to pursue registration to the ISO 14001 environmental management system standard.

## Relationships

IBM has a variety of outreach programs through which it engages with various groups and individuals on different issues of environmental policy.

Though they may vary by site, the company's community outreach programs range from Open Houses and emergency preparedness drills with local organizations to support of and participation in local environmental projects and environmental education efforts.

We also have ongoing dialogues with many socially conscious investment groups on a number of environmental issues. These dialogues are valuable. They allow us to share ideas and to obtain feedback about our programs, activities and performance.

Further, IBM has joined a number of voluntary performance initiatives and partnerships with governments and nongovernmental organizations. Examples include the U.S. EPA's ENERGY STAR and Climate Leaders programs. Partnerships with nongovernmental organizations include the following, among others: member of the World Resources Institute's Green Power Market Development Group; charter member of the World Wildlife Fund's Climate Savers program; and membership in the Pew Center on Global Climate Change. IBM also works with and supports organizations such as the Conservation Fund, the Environmental Law Institute, the World Environment Center and the World Resources Institute.

IBM partners with the Wildlife Habitat Council (WHC) to manage its properties in ways that enhance habitats. Five sites, including Corporate Headquarters, have had their land management and wildlife habitat programs certified by the WHC.

IBM encourages its employees to support environmental efforts. For example, through its Matching Grants program, the company in 2003 matched contributions made by U.S. employees to more than 575 environmental groups ranging from the Nature Conservancy and the World Wildlife Fund to smaller groups dedicated to preserving lands and habitats in local communities.

## Investment and Return

Over the past five years, IBM has spent \$336 million in capital and \$555 million in operating expense to build, maintain and upgrade the infrastructure for environmental protection at its plants and labs, and to manage its world-wide environmental programs.

ENVIRONMENTAL CAPITAL AND  
EXPENSE WORLDWIDE  
(*\$ in millions*)

	99	00	01	02	03
Capital	80	54	132	52	18
Expense	107	110	115	119	104
<b>Total</b>	<b>187</b>	<b>164</b>	<b>247</b>	<b>171</b>	<b>122</b>

IBM compares its environmental expenses to the estimated savings resulting from its policy of environmental leadership. IBM estimates that over the past seven years, annual savings from its focus on pollution prevention and design for the environment have exceeded environmental expenses by an average of two to one.

Expenses include items such as personnel, laboratory testing, water and wastewater management, waste treatment and disposal, groundwater protection, remediation and other environmental system operations. Savings come from energy, material and water conservation; recycling; packaging improvement initiatives; reductions in chemical use and waste; and process improvements from pollution prevention. Ongoing savings from previous years' initiatives are not carried over in this comparison, yielding very conservative estimates.

IBM also realizes savings through the avoidance of costs that likely would occur in the absence of its environmental management system. These savings are not measurable in the same way that expenses are, but avoiding these environmental-related costs does result in savings for IBM, and a reasonable attempt has been made to quantify them, as shown in the following tables.

2003 ENVIRONMENTAL EXPENSES WORLDWIDE

(*\$ in millions*)

Personnel	34.8
Consultant fees	2.8
Laboratory fees	2.0
Permit fees	0.4
Waste treatment & disposal	13.1
Water & wastewater management operations	20.9
Air emission control operations	1.4
Groundwater protection operations	1.0
Other environmental systems operations	2.8
Waste & materials recycling	2.4
Superfund & former IBM site remediation	19.6
Miscellaneous/other	3.2
<b>Total</b>	<b>104.4</b>

2003 ESTIMATED ENVIRONMENTAL SAVINGS  
AND COST AVOIDANCE WORLDWIDE

(*\$ in millions*)

Location pollution prevention operations	74.1
Corporate operations	6.0
Packaging improvements	16.7
Environmentally preferable materials usage	4.1
Energy conservation & cost avoidance	38.8
Superfund & site remediation efficiencies	1.6
Insurance savings*	8.0
Spill remediation cost avoidance**	28.0
Compliance cost avoidance**	52.0
<b>Total</b>	<b>229.3</b>

\* Savings achieved through use of RCRA financial assurance in lieu of environmental impairment insurance.

\*\* These savings are estimates based upon certain assumptions. The figure for spill remediation cost avoidance is estimated from IBM's actual experience with remediation costs. Compliance cost avoidance includes consideration of potential penalties, legal fees and business interruption that are avoided. A figure for potential penalties and legal fees was estimated from an analysis of 2003 U.S. EPA data. An estimate for business interruption was based upon potential impact of a plant shutdown.

# Product Stewardship

IBM's Environmentally Conscious Products program was established in 1991. Its objectives are to:

- Develop products that can be upgraded to extend product life.
- Develop products that can be reused and recycled at the end of product life.
- Develop products that can be disposed of safely at the end of product life.
- Develop and manufacture products that use recycled materials where they are technically and economically justifiable.
- Develop products that will provide improvements in energy efficiency and/or reduce energy consumption.
- Develop products that minimize resource use and environmental impact through the use of environmentally preferred materials and finishes.

IBM's environmental product design requirements are integrated into its environmental management system and are also part of the Integrated Product Development Guide used by process and product development engineers.

## PROGRAM PERFORMANCE AGAINST 2003 GOALS

### Powder Coatings

IBM finished 97.1 percent of its decorative metal covers using powder coatings in 2003, against its goal of maintaining powder use at or above 90 percent. Using this environmentally preferred material enabled IBM suppliers to avoid the emission of more than 580,000 pounds of volatile organic compounds that would have been realized if liquid paint had been used to finish the same square footage.

### Recycled Plastics

Of the plastic resins IBM procured in 2003, 5.5 percent were recycled resins versus the corporate goal of 5 percent. The corporate target was reduced in 2003 from the previous 10 percent goal because available sources and applications for recycled plastics have decreased, making the previous goal unattainable.

### Product Landfill Use

IBM's Product End-of-Life Management (PELM) operations worldwide processed 68,831 metric tons of end-of-life products and product waste during 2003, and sent only 1,112 metric tons to landfills. This resulted in a landfill use rate of 1.62 percent. These operations thus outperformed the company's PELM landfill metric target, which is to maintain a landfill rate below 3.0 percent. Contributors to this performance include the continued success of major PELM locations in reducing landfill use and improved internal reporting on the remanufacturing and resale of machines over 2002 worldwide.

## Product Energy Efficiency

PRODUCT	PERFORMANCE
Personal computers, printers, monitors	Of all the applicable new products first shipped in 2003, 100 percent met ENERGY STAR criteria, meeting our goals of 100 percent of personal computers and 100 percent of other applicable products. ThinkCentre desktop computers achieved the standby (off) value of 1 watt through design enhancements.
Servers	<ul style="list-style-type: none"> <li>• iSeries models reported up to a 22 percent reduction in operating power consumption per unit of work against comparable previous-generation models.</li> <li>• pSeries models reported a 56 percent to 76 percent reduction in operating power consumption per unit of work against comparable previous-generation models.</li> <li>• zSeries models reported a 50 percent to 95 percent reduction in operating power consumption per unit of work against comparable previous-generation models.</li> <li>• xSeries metrics vary by machine type and customer application.</li> </ul>
Point-of-sale terminals	The energy efficiency of the SurePOS 700 enhanced 4800 model increased 65 percent maximum power consumption in watts per composite theoretical performance.
Storage subsystems	There were no new DASD subsystems released in 2003.
Tape drives	Energy efficiency increased from 83 percent to 96 percent in watts per gigabyte, depending on the model.

Note: Product energy efficiency goals vary by product type but all are measured by their increase in energy efficiency over previous-generation products or models.

## DESIGN FOR THE ENVIRONMENT

In 2003, IBM's efforts in product design for the environment focused on materials substitution and integrating new requirements for the supply chain and for production procurement. IBM's corporate standard for environmentally conscious design and the IBM engineering specification on environmental requirements for materials, parts and products were revised to require disclosure of an expanded list of substances, including all applications of substances associated with the European Union's Directive on the Restriction on use of certain Hazardous Substances in Electrical and Electronic Equipment (RoHS).

IBM eliminated from use in its products most of the substances subject to restrictions under the RoHS Directive many years ago, and has programs for the remaining applicable substances. For example, the company's list of banned and restricted substances for its hardware products worldwide has long prohibited such substances as cadmium, polybrominated biphenyls and polybrominated diphenyl ethers. The use of lead (Pb) and hexavalent chromium had also been restricted but only in paint and plastic formulations. Under IBM's revised requirements, any application of these substances in an IBM product must be documented, and a plan established to qualify a product that can comply with the RoHS Directive.

## LEAD REDUCTION AND ELIMINATION

In addressing the RoHS requirements, IBM's emphasis has been on lead because its use is pervasive in electronic assemblies in comparison to the other materials restricted under the Directive. To meet its lead reduction and elimination objectives, IBM established a comprehensive program in 1999 to systematically address the use of lead in its broad array of technology and hardware products, working internally with its research and development teams as well as externally with its supply chain. Under this program, IBM has also been an active participant and supporter of various technical consortia, and is working with a number of universities and a national laboratory on solutions to important technological and manufacturing issues relating to the introduction of lead-free technologies.

IBM's product lines range from microelectronic components, laptop and desktop computers, and a range of printer and point-of-sale products to a variety of storage and server products (entry level, midrange and mainframe computers). These product lines have widely different time-to-market requirement cycles, typically ranging from less than a year to more than three years in some cases. The cycles are predicated on multiple factors, including machine complexity, product development lead time requirements, supply chain readiness and projected market life. Consequently, IBM's schedule in achieving RoHS compliance varies by product line.

Lead-free product offerings debuted from IBM Technology Group in 2003. These core technology products are necessary for the conversion of many customers' products, as well as IBM's other product lines, to RoHS compliance. The process of implementing lead-free technology in box products starts with the availability of lead-free microelectronic components. IBM's lead-free plastic components with wire-bonded chips were made available to its internal and external customers in June 2003. These types of components represent approximately 80 percent of the total volume shipped to customers. Another category of plastic chip carrier using ball grid arrays with wire-bonded chips has been available since June 2003.

To address reliability concerns for lead-free materials for product lines in mission-critical server and storage applications, IBM divisions have documented a limited set of approved metallurgies for specific component, circuit card, and plating materials and finishes. Since IBM expects to employ permissible lead exemptions in some server and storage offerings to ensure product reliability until proven concerns with lead-free alternatives are sufficiently mitigated, specifications for RoHS compliance of components and assemblies are therefore dependent on their end product application. RoHS compliance specifications for IBM today vary by commodity and product line. These specifications are available externally on IBM's Global Procurement portal. IBM intends to fully comply with the RoHS requirements by the July 1, 2006, deadline.

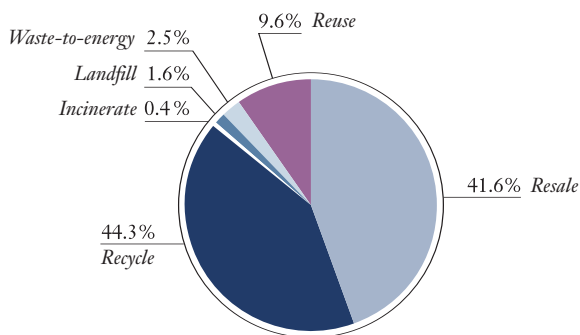


## PRODUCT END-OF-LIFE MANAGEMENT

As part of its product end-of-life management (PELM) activities, IBM began offering product takeback programs in Europe in 1989 and has extended and enhanced them over the years. IBM Global Finance (IGF) now offers Asset Recovery Solutions globally to commercial customers. These solutions include the management of data security and disk overwrite services, a worldwide remarketing network for product resale, and state-of-the-art services for refurbishing and recycling any manufacturer's IT equipment. Additionally, in many countries, IBM offers solutions to household consumers for the end-of-life management of computer equipment, either through voluntary IBM initiatives or country programs in which the company participates.

In 2003, IBM PELM locations worldwide processed 68,831 metric tons of end-of-life products and product waste, and sent only 1,112 metric tons of that total to landfills, resulting in a landfill use rate of 1.62 percent. This is compared with 2002 when IBM sent 1,493 metric tons (2.92 percent) of its total collected end-of-life products and product waste to landfill. The following pie chart provides a breakdown of the PELM disposition of all of the equipment processed in 2003.

IBM'S 2003 PELM DISPOSITION RESULTS



## PRODUCT RECOVERY AND REUSE ANALYSIS

In early 2004, IBM initiated a comprehensive review of its PELM services and offerings to assess their effectiveness in capturing and recycling IT equipment. Since 1995, when IBM first began providing the volumes of end-of-life product and product waste it recovered and processed (i.e., resold, refurbished or recycled) in the company's annual corporate environmental report, through year-end 2003, IBM has documented the collection and recovery of more than 1.06 billion pounds (481 million kilograms) of product and product waste worldwide.

In 2003, IBM's PELM network resold, reused or recycled more than 830,000 PCs, 527,000 monitors and 400,000 laptops from the total end-of-life product returns worldwide. These numbers of products do not include any of IBM's share of returned products processed by country product takeback programs (e.g., Netherlands' ICT, Switzerland's SWICO program).

Comparing the total number of PCs, monitors, and laptops IBM resold, reused, or recycled worldwide in 2003 to the total number of new IBM sales worldwide of similar products in 2003, the company resold, reused, or recycled 17 PCs for every 100 new sales, 16 monitors per 100 new sales and 12 laptops per 100 new sales. The best performance was in the United States, where IBM resold, reused or recycled 37 PCs for every 100 new sales, 25 monitors per 100 new sales, and 21 laptops per 100 new sales.

## PROMOTION OF RECYCLING SOLUTIONS

IBM's objective with regard to product recycling is to provide or promote solutions that will increase the reuse and recycling of IT equipment. IBM continues to grow its Asset Recovery Solutions, but returning products to IBM for recycling or disposal is not always the most appropriate solution for all customers. Accordingly, IBM continues to promote and facilitate the development of external recycling systems to assist customers with disposal of their products. For example, IBM participates in numerous collective recycling initiatives worldwide in countries like Belgium, Switzerland, Japan, Norway, Sweden and the Netherlands.

In 2003, IBM worked cooperatively with California legislators, the California Environmental Protection Agency, environmental organizations and many other manufacturers to pass electronic waste recycling legislation in California that established this country's first comprehensive and fully funded recycling solution for electronic products.

IBM is among the supporters of legislation, such as that in California, establishing “visible advance recycling fees” collected at the time of sale to cover the cost of collection, transportation and recycling of computers. Our experience in Europe with recycling systems financed with advance recycling fees indicates that such systems are effective and efficient, and that a nominal fee—\$5 to \$10—collected at the time of sale can fund the entire cost of product collection and recycling, placing no burden on municipalities or taxpayers.

## PACKAGING

Packaging is often the initial source of waste generated by a product once it enters the market. To minimize this source of waste, IBM strives to keep packaging to a minimum and, whenever feasible, composed of recyclable and/or reusable materials. IBM’s Packaging Guidelines, developed in 1990, are updated periodically. They prohibit the use of ozone-depleting chemicals, heavy metals, polybrominated biphenyls and polybrominated biphenyl oxides. The guidelines also provide direction to minimize toxic elements in packaging materials; identify methods, processes and designs to reduce packaging volume; and promote the use of packaging materials that are reusable, recyclable and/or contain recycled content.

Key elements of IBM’s Packaging Guidelines have been embedded in various engineering specifications, which extend their reach beyond IBM to include its supply chain and other business partners.

For over 10 years, IBM has prohibited the use of polyvinyl chloride (PVC) and the use of free-flowing cushioning materials (such as “plastic peanuts”) in IBM packaging. It has also prohibited the use of permanently commingled but dissimilar materials except in cases in which they are part of reusable packaging designs or technically required to ensure product quality, such as in static-shielding bags.

In the area of wooden packaging, IBM has prohibited chemical pressure impregnation of wooden packaging even though legally allowed, since the chemicals used render the wood unfit for either recycling or energy recovery. It has also prohibited the use of methyl bromide fumigation of wooden packaging, even though legally allowed for quarantine purposes, since these chemicals are ozone-

depleting substances and are toxic to nontargeted species. IBM contributed to a pallet marking program now being adopted by the U.S. Department of Agriculture (USDA), the Food and Agricultural Organization (FAO), the International Plant Protection Convention (IPPC), and now a part of a United Nations-sponsored globally harmonized specification ISPM-15, which is aimed at harmonizing global standards for wood treatment.

IBM is also working with its suppliers to extend its environmentally responsible packaging initiatives. The company has created a new end-to-end process to investigate incoming packaging from IBM suppliers. Changing current supplier designs and reviewing future supplier designs has provided the following benefits:

- *Elimination of 1,453 tons of packaging materials (928 tons of primary packaging and 525 tons of palletization materials).*
- *Reduction in transportation due to 18,400 fewer pallets required.*
- *Savings of \$12.8 million in packaging materials and distribution costs to date.*

The program also influences the way our suppliers package products for their other customers, therefore extending the environmental benefits beyond IBM’s supply chain.

## Product Safety

IBM’s product safety requirements are included in various steps of the product design, development, manufacture and test process, and include the supply chain. Required reviews by IBM Product Safety Review Boards help product and project managers comply with applicable standards and national regulations, and obtain third party certifications where required.

Programs for continual improvement include both customer and third party assessment of our products’ safety and conformity assessment programs. These assessment results are continually fed back into the evaluation and planning cycle. This process is augmented by incident management tools that provide effective capture and management of any product safety-related incident.

## Energy Conservation

IBM's corporate policy on environmental affairs calls for the company to use energy responsibly throughout its business, including conserving energy, improving energy efficiency and giving preference to renewable over non-renewable energy sources when feasible.

IBM's energy program seeks to achieve and sustain progress in:

- *Improving the environment by maintaining a position of leadership in energy conservation.*
- *Reducing costs and increasing competitiveness and shareholder value through gains in energy efficiency.*

### CORPORATE ENERGY CONSERVATION GOAL

IBM's energy goal is to save the equivalent of 4 percent of IBM's actual annual electricity and fuel use by improving energy efficiency and giving credit to renewable energy use. Only savings from identified energy conservation projects count toward this goal. Reductions in energy consumption from downsizings, the sale of operations and cost avoidance actions are not included in the energy conservation goal.

In 2003, IBM exceeded its 4 percent corporate energy conservation goal, conserving approximately 7.2 percent of its total energy use. The company's energy conservation efforts worldwide avoided the consumption of 331 million kWhrs of electricity and 2.38 million gallons of fuel, thereby avoiding the emissions of more than 181,500 tons of carbon dioxide (CO<sub>2</sub>) and other combustion-related gases. These efforts also saved IBM \$16.1 million. IBM saved a further \$22.7 million through cost-avoidance initiatives, bringing total savings from energy management in 2003 to \$38.8 million.

Since 1990, IBM has reduced its CO<sub>2</sub> emissions by 65.8 percent, out of which 35.4 percent was due to energy conservation efforts, while the remainder came from consolidations/restructuring, etc.

### IBM ELECTRICITY USE AND CO<sub>2</sub> EMISSION DATA

YEAR	ELECTRIC USE <i>million kWhrs</i>	CO <sub>2</sub> (EST) <i>tons x 1,000</i>
99	5,800	3,951
00	5,325	3,412
01	5,228	3,247
02	5,031	2,902
<b>03</b>	<b>4,446</b>	<b>2,573</b>

*The above figures include estimates for portions of IBM's office space that are leased. CO<sub>2</sub> emissions are calculated for all energy use, including electricity, fuel oil and natural gas.*

### IBM ENERGY CONSERVATION AND AVOIDED CO<sub>2</sub> EMISSIONS

YEAR	CUMULATIVE ELECTRIC SAVINGS <i>million kWhrs</i>	CUMULATIVE AVOIDED CO <sub>2</sub> (EST) <i>tons x 1,000</i>
99	664	325
00	831	401
01	1,110	521
02	1,264	564
<b>03</b>	<b>1,383</b>	<b>605</b>

*The above annual figures represent results from each year's new conservation programs, plus results from programs of previous years (which are discounted by 25 percent per year). Savings prior to 1998 are not included.*

## Climate Change

IBM believes the most constructive approach it can take to address the complex issue of climate change is to apply its technical and engineering expertise to reduce emissions associated with its own operations, and to create products that are increasingly energy efficient.

IBM operations do not release significant quantities of so-called greenhouse gases (GHG), so the company's greatest potential impact is an indirect one, through the release of carbon dioxide by the utility companies providing the electricity used by IBM. This drives the company's focus on energy conservation.

IBM does directly release some perfluorocompounds (PFCs) from its semiconductor manufacturing operations, although they are in relatively small amounts (in carbon equivalents, when compared to indirect carbon dioxide emissions). In 1998, IBM became the first semiconductor manufacturer to set a numeric emissions reduction target for PFCs, and the company beat its goal, having reduced its PFC emissions from semiconductor manufacturing by 40 percent worldwide, indexed to production against a base year of 1995, in August 2002.

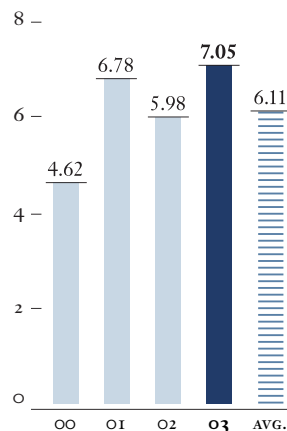
We continue voluntary efforts to further reduce both CO<sub>2</sub> and PFC emissions. In 2002, IBM joined the U.S. EPA's Climate Leaders program, which challenges businesses to set aggressive, corporatewide greenhouse gas emissions reduction goals that exceed business-as-usual performance in any company's industry sector. As part of its participation in Climate Leaders, IBM is pursuing two emissions reduction goals that cover virtually all direct and indirect IBM greenhouse gas emissions:

- *Achieve average annual CO<sub>2</sub> emissions reductions equivalent to 4 percent of the emissions associated with IBM's annual fuel and electricity use over the six-year period from 2000 through 2005. IBM intends to achieve these reductions through further energy conservation actions.*
- *Achieve an absolute 10 percent reduction in PFC emissions from IBM's semiconductor manufacturing processes by the end of 2005, using 2000 as the base year.*

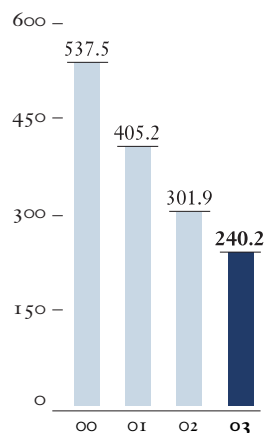
IBM has exceeded both of these goals thus far. The company has achieved an average CO<sub>2</sub> emissions reduction of 6.11 percent from 2000 through 2003 versus the 4 percent goal. Helping to achieve this great result was IBM's procurement of renewable energy for about 2.5 percent of its electricity consumption in 2003 (111,800 megawatt hours) and for about 1.3 percent of its consumption in 2002 (66,200 megawatt hours).

Regarding PFC emissions, at the end of 2003, IBM had achieved a 55.3 percent reduction in the emissions of six greenhouse gases (NF<sub>3</sub>, CF<sub>4</sub>, C<sub>2</sub>F<sub>6</sub>, SF<sub>6</sub>, C<sub>3</sub>F<sub>8</sub> and CHF<sub>3</sub>) associated with PFCs in semiconductor manufacturing from IBM's worldwide facilities against the 2000 base year, significantly exceeding the 10 percent goal.

CO<sub>2</sub> EMISSIONS REDUCTIONS  
(reduction in percent)



PFC EMISSIONS  
(in metric tons CO<sub>2</sub> equivalent x 1,000)



Consistent with our commitment to voluntary initiatives and support of market-based solutions, IBM joined the Chicago Climate Exchange (CCX) as a charter member in November 2003. CCX is the world's first multinational and multisector market for reducing and trading greenhouse gas (GHG) emissions. Its primary goals are to:

- *Demonstrate a voluntary commitment by a cross-section of the U.S. industry to reduce GHG emissions and implement a market-based emission reduction program.*
- *Demonstrate the viability of a cap-and-trade program.*
- *Establish a mechanism for achieving price discovery as well as for developing and disseminating market information.*
- *Facilitate trading with low transaction costs.*

To achieve its goals, CCX is implementing a four-year pilot program from 2003 through 2006 whereby member companies commit to reduce GHG emissions by 1 percent below baseline during 2003, 2 percent below during 2004, 3 percent below during 2005 and 4 percent below during 2006. The average of annual emissions during the years 1998 through 2001 forms the baseline for emissions. Any reductions achieved beyond the absolute reduction targets are issued as allowances that can be traded subject to varying caps in each year of the program.

Applicability of the CCX membership commitment includes all IBM facilities in the United States, Canada and Mexico with respect to baseline emissions (average of 1998 to 2001) as well as the pilot program period (2003 to 2006). IBM uses the greenhouse gas reporting protocol developed by the World Resources Institute.

## Releases

IBM's manufacturing and development operations rely on the use of some chemicals on the U.S. Toxic Release Inventory (TRI) list. Since 1993, IBM has reduced its total TRI chemical quantities worldwide by 86.3 percent. IBM's objective in this area is one of continual improvement in minimizing its global TRI chemical quantities, including its releases and transfers off-site for treatment and disposal.

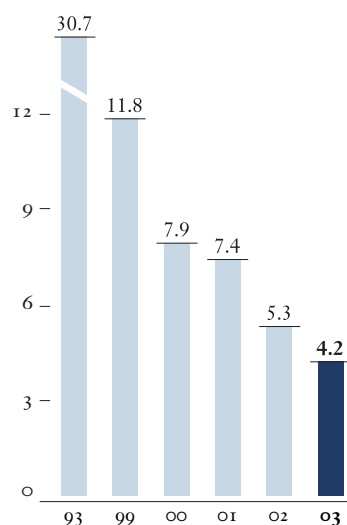
## INTERNATIONAL PERFORMANCE MEASURES

Under the U.S. Superfund Amendments and Reauthorization Act (SARA) of 1986 and the U.S. Pollution Prevention Act (PPA) of 1990, companies are required to file an annual inventory of routine releases and off-site transfers in addition to recycling, treatment and energy recovery activities for more than 600 TRI chemicals.

IBM began using this U.S. metric to measure its chemical quantities, releases and transfers for its operations globally in 1993. In 2003, IBM sites worldwide used 19 of these chemicals in quantities greater than the reporting threshold of 4.536 metric tons (10,000 pounds) of use per year.

From 2002 to 2003, IBM achieved a 20.5 percent decrease of the total quantities covered by both SARA and PPA worldwide to a total of 4,202 metric tons. The majority of this reduction was the result of the divestiture of some operations, but pollution prevention initiatives also contributed to the performance.

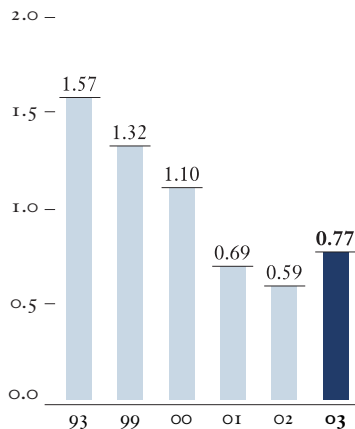
IBM TOTAL CHEMICAL QUANTITIES\* WORLDWIDE  
As defined by U.S. SARA Section 313 and PPA  
(metric tons x 1,000)



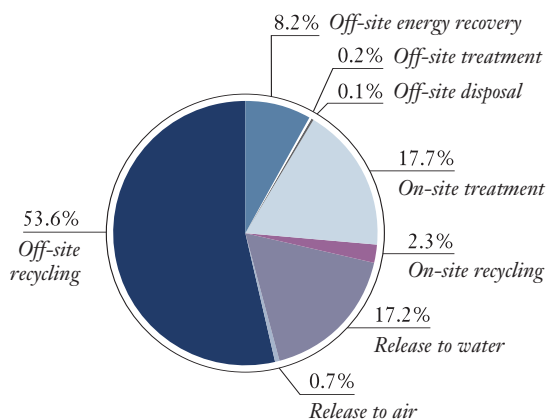
\* Includes recycling, treatment, energy recovery, releases and off-site transfers

**IBM TOTAL RELEASES TO ENVIRONMENT AND WASTES TRANSFERRED OFF-SITE FOR TREATMENT AND DISPOSAL WORLDWIDE**

*As defined by U.S. SARA Section 313  
(metric tons x 1,000)*



**IBM TOTAL CHEMICAL QUANTITIES WORLDWIDE**  
2003 Reportable Quantities — 4,202 metric tons  
*As defined by U.S. SARA Section 313 and PPA*



**IBM TOTAL CHEMICAL QUANTITIES WORLDWIDE**

*2003 Reportable Quantities  
As defined by U.S. SARA Section 313 and PPA*

CHEMICAL	METRIC TONS
Copper Compounds	1,154
Nitrate Compounds	993
Xylene	893
All Others	1,162
<b>Total</b>	<b>4,202</b>

In 2003, the total releases to the environment and waste transferred off-site for treatment and disposal from IBM's worldwide operations increased by 30 percent to 767 metric tons, mainly as a result of the permitted discharge of nitrates to water from a new 300mm semiconductor production facility that was brought online in East Fishkill, New York. As a voluntary action, the East Fishkill facility is pursuing installation of new equipment to reduce its discharge of nitrates.

## Pollution Prevention and Waste Management

Since 1971, IBM's goal has been to identify and eliminate potential pollution, often by reducing the generation of hazardous waste at its source. Where possible, IBM has redesigned processes to eliminate or reduce chemical use and substituted more environmentally preferable chemicals. For the waste that is generated, IBM focuses on preventing pollution through a comprehensive, proactive waste management program.

### POLLUTION PREVENTION THROUGH SOURCE REDUCTION

In 2003, IBM's hazardous waste generation indexed to output was reduced 7.7 percent. This means that source reduction efforts reduced the generation of hazardous waste by 313.5 metric tons. The metric covers 90 percent of IBM's manufacturing and hardware development-related hazardous waste, which came from five sites.



**WASTE MANAGEMENT**

IBM manages the waste that it generates (both hazardous and nonhazardous) according to a waste hierarchy that requires, in order of preference:

- Reduction
- Reuse
- Recycling
- Chemical or physical treatment
- Disposal (only as a last resort)

**Hazardous Waste**

From 2002 to 2003, IBM’s total hazardous waste decreased by 2,704 metric tons or 19.8 percent. Though the sale of some operations, primarily hard disk drive manufacturing, accounted for the majority of the reduction, pollution prevention actions also contributed. IBM recycled approximately 46.2 percent of the hazardous waste it generated in 2003.

As shown in the adjacent chart, IBM’s total hazardous waste decreased by 70.9 percent over the past five years, and has decreased by 95.2 percent since 1987. IBM’s total hazardous waste calculation includes waste from both nonmanufacturing and manufacturing operations. Waste from manufacturing operations includes waste recycled in closed-loop systems where process chemicals are recovered for subsequent reuse, thus reducing the need for new chemical supplies.

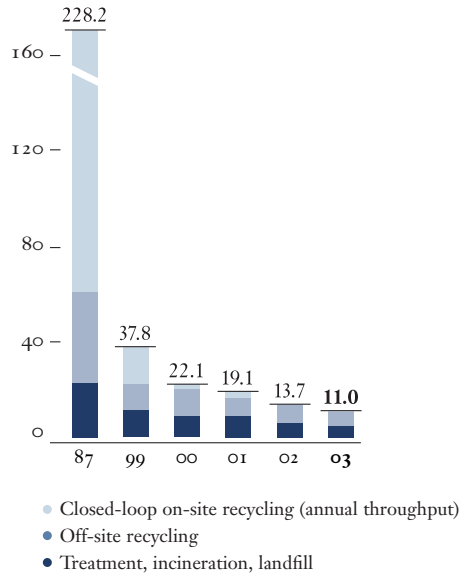
**Nonhazardous Waste**

Nonhazardous waste includes such waste as paper, metals, plastics, deionized resins and nonhazardous chemicals. IBM’s nonhazardous waste goal is to recycle 67 percent of these materials. This level was surpassed by a corporate-wide recycling rate of 77 percent in 2003, with 64 percent of the locations reaching the goal. Over the past several years, some of IBM’s sites have been able to recycle virtually all nonhazardous waste generated.

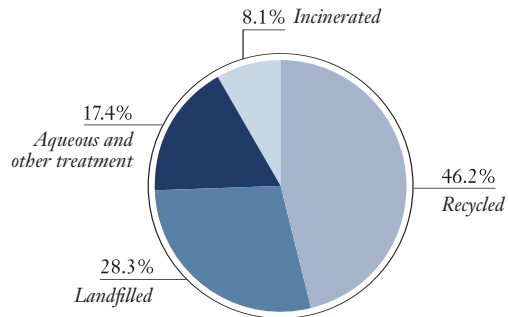
IBM NONHAZARDOUS WASTE GENERATED AND RECYCLED WORLDWIDE  
(metric tons x 1,000)

	99	00	01	02	03
Total Recycled	142	142	127	120	82
Total Generated	190	185	167	154	106
Percent Recycled	75%	77%	76%	78%	77%

IBM HAZARDOUS WASTE QUANTITIES WORLDWIDE  
(metric tons x 1,000)



IBM HAZARDOUS WASTE MANAGEMENT WORLDWIDE  
2003 quantities — 10,967 metric tons

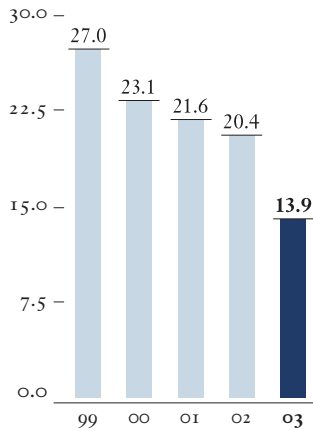


## Water Conservation

Because it is a critical natural resource, water conservation is an important environmental priority for IBM. Water conservation projects involve such activities as the recycling of ultra-pure water used in electronics manufacturing, manufacturing process innovations to reduce water use, and the substitution of treated water for well water or city water in certain applications.

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IBM WATER CONSERVATION  
PLANTS AND LABS WORLDWIDE  
(water consumption in thousand cubic meters x 1,000)



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### WATER SAVINGS GOAL

Past data from IBM manufacturing, development and research facilities worldwide indicate that IBM's Microelectronics organization used approximately 70 percent of the total water consumed at these locations. As a result, in 2000, the division established an annual water savings goal of 2 percent of total water usage, based on the water usage of the previous year and measured as an average over a rolling five-year period. Water savings credited toward the goal always include water use reduction. Also included are water reuse and water recycling savings when those results are greater than the previous year.

In 2003, IBM's Microelectronics organization achieved an 11 percent savings rate against its goal of 2 percent, translating to a savings of more than 600 thousand cubic meters (TCM) of water. The water savings rate is based on savings from water reduction activities only. An additional 1,650 TCM of water was reused and recycled at Microelectronics facilities in 2003. Over the past three years, IBM Microelectronics has achieved an average annual water savings of 6.7 percent.

Although not subject to the 2 percent water savings goal, other IBM organizations also focus on water conservation. IBM's overall water consumption by plants and labs worldwide decreased by 31.9 percent from 2002 to 2003. The majority of the reduction was due to the sale of some operations and the remainder to conservation and recycling efforts.

## Audits and Compliance

IBM measures its environmental performance against both external and internal requirements. Each manufacturing and hardware development and research site completes a standard annual self-assessment, and some operations and functions are assessed more frequently. In addition, approximately five sites are audited for environmental, health and safety compliance by IBM's Corporate Internal Audit staff each year. Audit results are communicated to top management. Follow-up, accountability and actions are clearly delineated.

In addition, as part of IBM's single, global registration to ISO 14001, approximately 15 sites are audited each year by an independent ISO 14001 registrar. The company's manufacturing, development and chemical-using research sites are audited, by either the corporate audit team or the external ISO 14001 registrar, at least once every two years.

## ACCIDENTAL SPILL AND RELEASES

IBM sites around the world report environmental incidents and accidental releases to IBM management through the company's Environmental Incident Reporting System (EIRS). Every event meeting IBM's environmental incident reporting criteria, which equal or surpass legal reporting requirements, must be reported through EIRS. Each IBM location must also have a documented incident prevention program (including provisions for preventing environmental incidents or their recurrence) and reporting procedure.

In 2003, a total of 63 accidental releases was reported through EIRS. Nineteen of these were releases to secondary containment, leaving 44 actual releases to the environment. Eight of these involved petroleum products, 14 were refrigerants and the four emissions to air included two of VOCs, one of ammonia and one of natural gas. There were eight releases of water (water used for fire protection, chilled water or water from a cooling tower), one of groundwater and five of wastewater. There were also two releases of industrial wastewater sludge, one of TMAH (tetramethylammonium hydroxide) condensate, and one release of resin.

Corrective action was taken for the releases that could be contained and did not immediately dissipate. Those that could not be contained and remediated were either instantaneous air emissions or discharges to water conveyances. The releases to water were minor and had minimal impact on the environment. The releases to air immediately dissipated. None of the releases were of a duration or concentration to cause long-term environmental impact.

## FINES AND PENALTIES

One significant measure of a company's environmental performance is its record of fines and penalties. IBM received 147 regulatory visits/inspections in 2003, but was not assessed any fines during the year. Over the past five years, IBM has paid eight fines for a total amount of \$12,033.

FINES AND PENALTIES WORLDWIDE

	99	00	01	02	03
Number	5	1	1	1	0
Fines (\$ in thousands)	\$9.3	\$1.9	\$0.01	\$0.8	\$0

## Remediation

IBM voluntarily began monitoring groundwater at its manufacturing and development locations around the world when groundwater contamination was first discovered at one of its sites in 1977. Worldwide, IBM today has approximately 2,700 monitoring and 120 extraction wells. In 2003, approximately 13,200 pounds of solvents from past contamination were extracted while remediating, controlling and containing groundwater at seven currently operating sites and 10 former sites in three countries. At three of these sites, an additional 420 pounds of solvents were removed by soil vapor extraction or other methods. IBM also has financial responsibility for remediation at two other former sites.

As a result of the U.S. Superfund law, IBM is also involved in cleanup operations at some non-IBM sites in the United States. The Superfund law creates a retroactive responsibility for certain past actions even though they may have been technically and legally acceptable at the time.

As of year-end 2003, IBM had received notification (through federal, state or private party) of its potential liability at 104 sites. Of these, 55 are on the U.S. National Priority List. At the majority of the 104 sites, it has been determined that IBM either never had liability or has resolved liability. As a result, IBM believes it may have potential liability at only 14 sites.

At one Superfund site where IBM is performing work, the company began remedial activities in 2001. The site, known as the Shenandoah Road Groundwater Contamination Superfund Site in New York, was operated by a vendor with whom IBM did business approximately 30 years ago. The vendor's operations allegedly caused soil and groundwater contamination that was discovered in 2000. The vendor is no longer in business, and in May 2001, IBM voluntarily signed an agreement with the U.S. EPA to excavate and remove the contaminated soil. IBM has also provided water filtration systems for local homeowners with wells whose water may have been affected. IBM is currently developing an alternative water source as a long-term reliable drinking water supply and is studying possible groundwater remediation solutions.

Groundwater vapor intrusion occurs when, under certain conditions, chemical vapors from groundwater rise and enter buildings. Government agencies, scientists and professional engineers are studying this phenomenon to better understand it.

Following draft guidance issued by the U.S. EPA in November 2002 and working in cooperation with New York state regulatory agencies, IBM identified buildings in a certain part of the area near its former facility in Endicott, New York, where this situation might occur, and launched the so-called Groundwater Vapor Project to assess the potential for groundwater vapor intrusion in these buildings.

Although the level of vapors found in buildings is very low, and no uniform national standards defining permissible amounts of these vapors in nonindustrial indoor air exist, IBM has been offering and installing ventilation systems for the structures meeting the criteria the New York State Department of Environmental Conservation and New York State Department of Health established for the project. Installation of the ventilation systems in structures where the property owners have authorized the work was substantially completed by mid-2004.

When investigation and/or remediation at an IBM location or an off-site facility is probable, and its costs can be reasonably estimated, IBM establishes accruals for loss contingency. Estimated costs connected with closure activities (such as removing and restoring chemical storage facilities) are accrued when the decision to close down a facility is made. As of December 31, 2003, the total accrual amount was \$243 million.

## Recent Awards and Recognition

- *In September 2004, IBM was recognized as one of the “Top 20 Best Places to Work for Commuters” by the U.S. Environmental Protection Agency (EPA). This new EPA program recognizes the Fortune 500 companies that provide their employees with superior commuter benefits that help reduce traffic and air pollution. The “best of the best” of these employers make the Top 20 list.*
- *IBM also made the U.S. EPA’s first annual list of the metropolitan New York/New Jersey/Connecticut region’s “Best Workplaces for Commuters.” Five IBM locations in the tri-state area were recognized earlier in 2004, including Corporate Headquarters in Armonk, as well as the company’s North Castle, Somers, 1133 Westchester Avenue and Thomas J. Watson Research Center facilities.*
- *IBM Burlington in the United States received a 2004 Vermont Governor’s Award for Environmental Excellence & Pollution Prevention. The award recognized IBM Burlington for its chemical reduction in a manufacturing process step involving the cleaning and etching of silicon wafers.*
- *IBM was ranked number one in environmental performance in the Computers and Peripherals Sector by Innovest Strategic Value Advisors in 2003, and holds its AAA environmental rating.*
- *IBM was awarded a “premier league” rating (for those scoring above 95 percent) in the 2003 Business in the Environment Index of Corporate Environmental Engagement. As in 2002 and 2001, IBM again scored 100 percent. This is the third consecutive year in which IBM shared the top spot in this ranking.*
- *IBM Australia was rated AA for environmental and social responsibility in the 2004 Australian Reputex Ratings of companies. One company rated a AAA, and IBM was one of nine companies receiving a AA rating out of a total of 120 companies.*
- *IBM Japan was awarded the top AAA rating in the Deloitte Touche Tohmatsu Environmental Corporate Ranking and a first place ranking by the Sustainability Management Rating Institute in 2003.*
- *IBM Japan received “The Continuous Award” for the IBM Japan Corporate Responsibility Report in 2004. This Green Reporting Award began in 1997 and “The Continuous Award” recognized IBM’s reporting excellence, from its earlier Environmental Progress Reports to the IBM Corporate Responsibility Report.*

## *IBM's interaction* and relationship with governments can be traced back to the U.S. census of 1890 and the invention of the punch card for tabulation of data.

Almost one hundred years later, the U.S. Federal government hired IBM to tabulate the 2000 Census, which—despite being the government's largest peacetime program—took a team of dedicated IBMers and IBM processing power only two weeks to produce and disseminate the results.

From our turning the Social Security Act of 1935 (“the greatest accounting operation of all time”) from law into reality, to working with NASA to land people on the moon in 1969, IBM has always been an advocate for progressive science and civic vision.

Governments today are faced with a myriad of challenges—from the unprecedented acceleration of global change to the relentless pressure for short-term results in an era of financial constraint.

The needs for collaboration in government are also clear. Citizens and businesses increasingly expect convenient, customized services, similar to those they receive in the private sector.

Getting systems and applications to work together is one way government can cut costs and transform the way it works. Consequently, open source computing, in which everything works together, is taking top priority.

Today, IBM leads the open source and open standards movement in enabling e-government and e-business throughout the developing world. We are an active participant in government hearings and fact-finding on the issues about which we care deeply and consider important to our future, the future of our clients and of global progress.

### Contributing to the Best Ideas in Government

Like any other business, IBM also interacts with governments as law-making and regulatory entities. However, in addition to obeying the law and abiding by regulations, we are also in a unique position, as the world's largest information technology company, to advise on developments and to advocate positions related to a government's oversight of economic, business and technology transactions and environments, as well as operations of government itself.

To facilitate progress and advance best practices in government operations, the **IBM Center for the Business of Government** was created in 1998, dedicated to stimulating research and facilitating discussion of new approaches to improving the effectiveness of government at all levels in the United States and across the world.

Since its creation, the center has awarded nearly 200 research stipends to leading public management researchers in the academic and nonprofit communities. These stipends have resulted in more than 125 reports, which are available on the center's Web site. The reports focus on the major issues facing all governments today: e-government, financial management, human capital management, managing for performance and results, market-based government, and innovation, collaboration and transformation. The Web site also contains information on how researchers can apply for future stipends: [www.businessofgovernment.org](http://www.businessofgovernment.org).

In addition to center reports, the Web site also includes interviews with more than 100 top government executives who discuss their careers and the management challenges facing their organizations. These interviews are originally broadcast on “The Business of Government Hour,” a radio program sponsored by IBM and broadcast Saturday mornings on WJFK 106.7 in Washington, D.C. Visitors to the Web site can listen to these interviews or read the interview transcripts.

The center is just one of the many ways IBM works to foster improvements in government at all levels—whether that government is our client, one of the towns or nations where we do business, or is simply part of the civic fabric shaping our world.

## e-government

Government today is undergoing a transformation similar to what has been happening in other industries, yet unique to the role that government plays in society and the lives of its citizens. As more of those citizens conduct more of their own personal and commercial business online, they increasingly expect their government to make itself available as conveniently, with similar levels of integration among related agencies and information.

Just as in business, this transformation began with individual government offices and agencies putting their content and forms online. As more governments have established a common IT strategy among their divisions, they also have begun to connect their technology with their operations, making procedural, regulatory and even legislation changes in order to eliminate redundancy, save costs, and improve the quality of interactions with citizens, employees, suppliers and even other governments.

As business and society have become more international, so too have governments at every level. Increased trade, global communities and interests, emigration, tourism, security and many other factors have created the need for greater flexibility and faster response on the part of government.

IBM’s deep experience in working with governments has clearly given us an advantage in this area, which constitutes an important focus for our sales, services and consulting organizations. But with that competitive advantage comes a responsibility for work to help governments to become better as governments, helping them to fulfill their role of serving and representing their citizens.

The next wave of e-government centers on collaboration and involves the use of technologies that will have government agencies interacting in innovative ways with citizens, businesses, employees and each other.

Going forward, governments also need to focus on using open, standards-based technology to increase efficiency and collaboration. First, they need to create systems that allow individuals, businesses and organizations to gain access to desired services quickly, affordably and securely.

Second, they must accomplish this in a way that lowers the cost of government. On demand businesses achieve these objectives every day, and in IBM’s view, there is no reason e-governments cannot benefit similarly.

## Open Computing

IBM is convinced that most governments should embrace the concept of open computing, even if only because they purchase IT goods and services from a variety of vendors and need to have these technologies work together. They wish to have the flexibility to deploy hardware and software in a specific way in order to address specific problems in an agency or department. They do not wish to be locked in to a specific vendor and subjected to the priorities and schedules of that vendor. Open computing provides them with a way to treat technology components as discrete modules that can be mixed and matched.

We know that organizations investing in open computing can maximize their flexibility and, consequently, the amount of business agility they have. Open computing therefore can help a government or government agency to rapidly adopt technology innovations, exploit technology cost reductions and benefit from vendor independence.

In IBM’s vision, interoperability and open standards—and a well thought-out architecture—are critical elements of open computing. Many governments and companies are leveraging the open community development process because of its requirement that the technologies from many entities work together in a complementary fashion. In an open computing environment—whether in banking, banking regulation, healthcare or a department of health—when technology choices occur, the decision should fall in favor of open standards, rather than standards that may be viewed as proprietary because they are controlled by a private company or organization.



For governments as for business, this “openness” is merely a means to an end, and it is essential we keep the goals themselves in sight:

- *Maintaining flexibility.*
- *Enabling interoperability.*
- *Avoiding vendor lock-in.*
- *Avoiding imposing technology decisions on the citizenry.*
- *Driving cost-effectiveness.*
- *Providing future access to information.*
- *Having a level playing field for competition.*
- *Maximizing freedom of action.*

## INTEROPERABILITY

Interoperability should not be looked at solely as a technical issue; interoperability is ultimately defined by a user’s experience, whether the user is a government employee or a private citizen. Interoperability is achieved when a user’s expectations regarding the exchange and use of information meets an application’s function across a variety of devices and among the offerings of various IT vendors.

Interoperability is also a powerful economic force. It is an enabler of a “network effect,” which promotes economic development through the linking of services. Trade, competitiveness, GDP growth, higher employment and the facilitation of efficient trade can all be advanced by the interoperability of information systems.

## OPEN STANDARDS

Open standards are the soul of the open computing environment. They set the pace of openness and its benefits: choice, flexibility and interoperability. They are not born; they evolve and mature, driven by pragmatism, speed to market and efficiency. Industry consortia and international bodies, in which IBM actively participates—such as W3C, OASIS, OMA, ISO and IETF—develop and generate standards for how data can be used, displayed and organized. These standards are generally published and available without charge (other than reasonable royalties for essential patents), freely available for adoption by the industry and controlled by an open industry organization with a well-defined inclusive process for evolution of the standard. Examples that may be most familiar include HTTP, HTML, WAP, TCP/IP, XML, VoiceXML and SQL, but a growing body of standards is enabling greater levels of innovation for both governments and businesses.

## OPEN COMPUTING FOR GOVERNMENT

For governments, solutions based on open standards address pressing policy issues. Budget challenges are almost universal, and computing systems that support open standards generally can be more cost-efficient than proprietary alternatives.

The need for e-government transformation is also a crucial priority, and the adoption of open standards is the only realistic way to achieve end-to-end integration and collaboration. Government operations are very dependent on large interconnected highly complex systems, which must be interoperable to work effectively and be able to provide end-to-end security.

Governments must also be open to citizens, giving greater access to e-government applications and enhanced responsiveness to citizens and businesses needing to interact with the government. Open implies that public administrations allow access to e-government applications on a choice of platforms and with a variety of technologies so as not to impose a single platform or vendor’s offering on the general public.

Open source programs inherently support interoperability, since their interfaces are, by definition, available for all to see and use.

Since they benefit from the innovative powers of thousands of software developers around the world, open standards can give governments more freedom. Economic pressures and employment creation in the private sector are also factors. By adopting open-computing-friendly policies, governments can effectively stimulate the development of the local software industry, putting local skills to work.

## LINUX AND GOVERNMENT

No other operating system has grown in popularity as quickly, across as wide a range of systems, as Linux has since its introduction in 1991. The speed of its adoption rate today far surpasses that of any other operating environment. Within the community of developers, recent reports estimate that 48 percent of software developers worldwide are targeting the majority of their applications to operate on a Linux platform.

As governments around the world see the benefits of open computing, an increasing number of official policies recommend the use of open standards and open source software, such as Linux, in public administration. These policies many times recommend industry-supported open standards for

key technologies in public sector procurements, facilitating a highly flexible, vendor-independent, interoperable IT architecture that can meet the needs of government and citizens. Other policies have structured complete and massive migration plans specifically toward Linux.

### Governments & Open Computing

GOVERNMENT	TECHNOLOGY POLICIES SUPPORT OPEN COMPUTING	PROCUREMENT POLICIES SUPPORT OPEN COMPUTING	LINUX MIGRATION PLAN
Australia	•	•	•
Brazil	•	•	•
Canada	•	•	
Chile	•		
Denmark	•		•
European Union	•		•
Finland	•		
France	•	•	
Germany	•		•
Italy	•	•	
Japan	•		
Mexico	•		
Netherlands	•	•	•
Norway	•	•	
Peru	•		
Russia	•		
South Africa	•	•	•
Spain	•		•
Sweden	•	•	•
Taiwan	•		•
United Kingdom	•	•	
United States	•		

## Case Studies

IBM is involved with many of these governments, with their agencies, or with regional governments within a country, in helping them to implement open source and open standards initiatives to further economic development, expanded access and increased integration.

### SPAIN

An ongoing collaboration between IBM and a research center at the Universitat Politècnica de Catalunya helped lead to the new venture between the Spanish government, the government of Catalunya and IBM. A general purpose supercomputer — to be located at the university — will be based on IBM’s 64-bit POWER technology and will run Linux. When fully realized, this new supercomputer will

be used by the public sector, by research centers and by industry in Spain and in other nations.

The project will support a wide range of scientific endeavors, including research into the human genome, protein folding, the development of new drugs, the study of diseases and climatic changes, as well as the development of new materials and designs for the aeronautics and automation industries.

At its peak performance, this computer will be capable of more than 40 teraflops (40 trillion calculations per second), making it one of the world’s most powerful supercomputers.

### BRAZIL

In 2003, Brazil’s Ministry of Science and Technology and IBM signed a letter of intent to help Brazil expand the use of Linux and open standards throughout the country.

The purpose of the agreement is mutual cooperation in research and development activities in information technology:

- *The development of a program to implement solutions based on the integration of an open software and a proprietary software in a governmental corporate network environment.*
- *The formation of a work group to conceive and implement a pilot laboratory in order to evaluate the basic requirements of open programs in a network environment, and apply the results of the lab research in the production environment.*
- *The implementation of solutions based on open programs and their integration with solutions based on proprietary software.*

To pursue these objectives, in 2003, IBM Brazil launched two technical centers fully dedicated to the development of Linux technology.

### CHILE

IBM and the Undersecretary of Telecommunications signed an agreement with the objective of training and disseminating IT knowledge — especially in the area of Linux and open standard software — among public sector employees. For this purpose, IBM built a special lab to work within the Public Administrator’s IT training program directed by the undersecretary. Through its business partners, IBM is providing courses and certifications for public employees on technologies and issues such as Linux, data security, network operations, database management and other subjects.

## GERMANY

Germany's Ministry of the Interior and IBM Germany agreed on a comprehensive cooperation contract to support the Federal Republic of Germany's move to Linux and open software.

The purpose of the contract is to help Germany increase the use of open source software by government agencies. A management system has also been established that uses IBM to support the government's creation of innovative and reusable IT solutions for the federal administration.

## Public Advocacy

In its relations with governments around the world, IBM is often called upon to offer expert testimony on various issues related to business, employment, technology, intellectual property, and other areas in which corporate or community interests coincide with government inquiry or oversight. When the interests of IBM's shareholders, clients or employees are at stake—on matters that may affect the communities where we live and work, or with whom we share goals and aspirations—IBM seeks to contribute information and perspective to the public dialogue and works to communicate its views to elected or appointed officials.

Among the areas in which IBM is interested in influencing public opinion, legislation and regulation:

**Open source software and open standards** – Open source software, most notably Linux, should be evaluated on an equal footing with conventional software in public sector procurements. Governments should reject any proposals to restrict the use of open source software in public administration. Further, governments should formally embrace open and nonproprietary standards through their technology purchasing decisions. Open standards can create a favorable environment for collaborative innovation, better network management, transformation and economic growth.

**High-performance computing** – IBM supports the strategy of advancing U.S. high-performance computing leadership with commercially viable computers.

**Export controls** – IBM advocates that the laws governing exports of commercial products strike an appropriate balance between national security and economic security.

**Privacy** – We lead private sector efforts to implement good privacy and consumer protection policies on the Internet and in e-business. And we support government regulation when it is clearly needed and clearly targeted; e.g., medical records privacy and children's online privacy.

**Digital rights management (DRM)** – IBM offers DRM and other content-protection technologies in response to market needs and demands—which we consider preferable to the imposition of government mandates.

**Security** – IBM provides a broad range of products and services that enable governmental and private sector organizations to assess, manage and mitigate their security risks, both physical and digital. We encourage organizations voluntarily to pursue such actions, recognizing that each entity can best assess its own security needs.

**Compensation** – We seek understanding and support for IBM's compensation and benefit plans so that we can maintain a competitive position in our industry.

**Retirement medical security** – In the United States, IBM has promoted flexible spending accounts, and we supported the Medicare reform that has provided a retiree drug-benefit program.

**Research and development** – We support increased investment in physical sciences research as a federal priority.

**Trade** – IBM encourages free trade among nations as a general policy. We applaud the passage of implementing legislation for the U.S.-Chile and U.S.-Singapore Free Trade Agreements (FTA). These agreements contain many important precedent-setting provisions in areas such as e-commerce and digital trade, services liberalization, intellectual property protection and government procurement, and they are serving as the basis for other FTAs going forward. We support WTO, FTAA and FTA negotiations with Central America, Morocco and the South African Customs Union, and we seek to have IBM's interests represented, particularly in the areas of services and e-commerce.

**Patents** – We advocate for the Patent and Trademark Office to retain all user fees and to be fully funded, so it can modernize, improve patent quality and reduce patent application pendency.

## SECURITY AND PRIVACY

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*Even while an On Demand Environment* creates opportunity and efficiencies for business, it depends on increasing interconnections between and among individuals, companies and markets, making the issues of data security and privacy of primary concern.

That's why security and privacy are top priorities at IBM—for internal applications we deploy and client solutions we implement. We recognize that protecting data and securing systems are fundamental to a successful business, a healthy Internet, and a vibrant and robust marketplace. IBM is committed to lead in issues of privacy and security, not just through our technological innovations and commercial offerings, but by example.

In this day and age, the threats that exist in the networked world are no longer mere nuisances—they can debilitate a company and ruin an individual's reputation or well-being. With threats proliferating in number and severity, data security and privacy have moved from the server room to the boardroom, becoming a top-of-mind business issue.

Drawing on our leadership in hardware, software, services, research and consulting, IBM approaches security and privacy holistically, going beyond merely blocking viruses, building firewalls and requiring passwords. We believe in an integrated approach that spans everything from the network to the workforce to the workplace and helps businesses to respond quickly and securely to change.

We take seriously our duty to help set the agenda for industry cooperation and to support appropriate government legislation. We have a responsibility—on both the technical and the policy fronts—to contribute to the creation and evolution of thoughtful frameworks for

data privacy and security, whether from the perspective of the individual, the enterprise or the government. Our leadership role includes advancing innovative policies, practices and technologies to help create optimal protection—within IBM and across society.

We back up our advocacy on issues of security and privacy with the actual expertise, experience and responsibility of IBM Global Service's more than 3,000 security and privacy professionals. Together with numerous IBM software developers, researchers and other experts, they make up one of the industry's largest groups of advocates for best practices in security and privacy—who follow those practices themselves in their daily work for our clients.

Our internal policies and practices reflect the same commitment to privacy and security that we advocate to the rest of the world. We have companywide guidelines to protect our corporate data and systems; employee workstations; and client, partner and supplier information.

Ultimately, we believe the growth of the networked world, online commerce, open government and the free flow of information that modern societies require depend on appropriate sensitivities to and protections of privacy and security. IBM intends to remain at the forefront of devising and promoting responsible, enhanced IT security and privacy solutions and policies worldwide.

## Relationships

No company or government can address the security and privacy challenges on its own. IBM teams up with business partners, engages with standards-making bodies, and works with governments and regulatory agencies worldwide to advance the cause and capabilities of IT security and information privacy.

Cooperation and collaboration between companies and across the industry are essential to make security the safety net it needs to become. Similarly, IBMers and others on the front line of building solutions must actively participate in the regulatory debate so that new security and privacy laws address the right issues in the best ways possible.

For example, the IBM Almaden Institute facilitates collaboration among scientists and technologists in academia, government, business, funding agencies and other research institutions. In 2003, the symposium's goal was to identify the issues surrounding privacy and data systems and to pave the way for the future of research in this area. The symposium brought together more than 100 scientists, technologists and industry experts from around the world to examine a variety of specific industry initiatives, case studies and international legislation and policies, all in an effort to broaden the conversation on the issue of privacy.

IBM is committed to forging strategic relationships and supporting collective efforts and legislation that will make data, networks, commerce and the overall IT environment more secure. We believe that, in this increasingly interconnected world, no company can stand alone when it comes to matters of security or privacy.

### BUSINESS PARTNERS

IBM has hundreds of Business Partners that it works with to provide leading-edge security and privacy offerings. By joining forces, IBM and other companies can integrate their products and technologies to produce solutions that can provide new levels of trust, greater than the sum of their parts.

Our business partnerships and other relationships with organizations help our industry develop products and services that work together and exchange data quickly and effectively. By collaborating with Business Partners from all segments of the security spectrum, IBM can offer a

more comprehensive, automated and holistic security experience that affords clients better protection from threats. These solutions often enhance ease of use for clients as well, since they consolidate many processes.

While IBM actively pursues and engages in Business Partner initiatives, we believe industry standards provide the greatest opportunity for industry cooperation and the creation of a seamless and self-protecting security landscape. Business partnerships are important, but in the long run we view them as a first step toward much more widespread and comprehensive standards adoption.

For example:

- IBM and Cisco cooperated to enable IBM Tivoli Security Compliance Manager to work with Cisco Network Admission Control technologies to help enterprises automatically comply with security policies, quarantine and remediate at-risk computing devices, and control who is given access to networks. This solution exemplifies the concept of a self-protecting framework.
- IBM and ActivCard, Bioscrypt, ImageWare and VeriSign have developed a new identity management security solution that extends ID management beyond traditional information technology, such as applications, operating systems and networks, to link “physical” identity characteristics contained in emerging biometrics, smartcard and badge-reader technologies. This solution helps organizations integrate identity management into a simplified, comprehensive system.

### STANDARDS LEADERS

IBMers participate in and contribute to a number of standards bodies that deal with issues of security and privacy:

**Organization for the Advancement of Structured Information Standards (OASIS):** IBM (along with Microsoft and VeriSign) defined the WS-Security specification to advance Web Services security and submitted it to OASIS. IBM participates in a Security Joint Committee that sets standards for Web Services-Security, Web Services-Policy, and Security Services such as SAML, XACML and XRMML. IBM's Directory team is also involved in the OASIS DSMLv2 effort. (See [www.oasis-open.org](http://www.oasis-open.org).)

**Consortium (W3C):** This consortium develops interoperable Web technologies (specifications, guidelines, software and tools). IBM participates in working groups that set standards for aspects of Web Services security as well as for XKMS, XML encryption and XML digital signature. We actively supported and participated in the development of privacy technology standards such as P3P, or Platform for Privacy Preferences. (See [www.w3c.org](http://www.w3c.org).)



**Java Community Process Executive Committee:** IBM belongs to this group and is one of the primary contributors to the Java security aspects of JAAS, J2EE, JSR 115, Web Services, Trust Service, XML digital signature and XML encoding. (See [www.jcp.org](http://www.jcp.org).)

**Identrus:** Identrus is aimed at providing trusted authentication for global e-commerce. IBM participates in Identrus, including its recent Digital Messaging Standard initiative. (See [www.identrus.com](http://www.identrus.com).)

**Open Grid Services Architecture (OGSA):** This is a working group within the Global Grid Forum (GGF) standards organization, which is defining an architecture for grid services security. (See [www.ggf.org/ogsa-wg/](http://www.ggf.org/ogsa-wg/).)

**Internet Engineering Task Force (IETF):** IBM participates in security and LDAP standards. In the past, IBM Lotus has actively participated in the PKIX work and developed one of the reference implementations. (See [www.ietf.org](http://www.ietf.org).)

**Web Services Interoperability (WS-I):** IBM established this group with a host of others to foster interoperability of Web services technologies. (See [www.ws-i.org](http://www.ws-i.org).)

**The Open Group (TOG):** IBM is a member of the security subgroup. Current security projects include: Security Roadmap and Strategy, Security Design Patterns technical guide, Security Guides for Business Managers, and Active Loss Prevention Initiative. The Open Group standardized the Authorization API that is used by Tivoli Access Manager. From a directory perspective, IBM is a founding member of The Open Group Directory Interoperability Forum. See [www.opengroup.org](http://www.opengroup.org).)

**Open Mobile Alliance (OMA):** This alliance is committed to driving open standards for interoperable mobile services. IBM is involved in the Mobile Web Services (MWS) groups, including a subgroup that is specifying identity management requirements. (See [www.openmobilealliance.org](http://www.openmobilealliance.org).)

**Trusted Computing Group (TCG):** This organization is a follow-on of the Trusted Computing Platform Alliance (TCPA) and is chartered to develop open specifications for trusted computing device building blocks. IBM is a founding promoter of the group along with MS, HP, Intel and AMD. Other members include Sony, Nokia, Phillips and VeriSign. Workgroups include software interfaces, PC, server, PDA and cell phones. (See [www.trustedcomputinggroup.org](http://www.trustedcomputinggroup.org).)

In addition, our work extends into other areas to help build consumer trust and encourage responsibility among companies who may use customer information to serve those customers. For example, IBM established commercial Web privacy guidelines with other industry leaders, and we adopted them ourselves. Also, we provided seed funding and support for the establishment of the independent Web trustmark programs TRUSTe and BBBOnline.

IBM also founded the IBM Data Governance Council, which is described in the report on data governance.

## GOVERNMENTS

In IBM's view, the business community needs to work with lawmakers and regulatory agencies so that the potential of the Internet as a driver of commerce and communication can be maintained without compromising confidence, individual rights or national security. IBM takes an active role in contributing to the regulatory debate by supporting fair, forward-looking policy initiatives and by offering expertise and testimony whenever necessary.

Given our leadership in many areas that touch security, we feel we have a unique grasp of the full spectrum of security issues, and we believe it's our obligation to participate when governments embark on new regulatory efforts.

In 2003 and 2004, IBM presented to the International Data Protection Commissioners Conference. And in many countries — such as Japan, Australia and Canada, for example — we have submitted comment and offered our expertise in the implementing of new national data protection laws.

## Data Governance

IBM employs a cross-company control model to govern how information is used, promote the security and integrity of all data, and protect privacy on both the individual and the corporate level. Our data governance rules and policies are designed to comply with our contractual obligations and to protect our shareholders and our relationships with clients, vendors and third parties who process our information.

Our policies seek to balance effective information access with appropriate use—who has ownership of certain information, who can use it, and for what purposes—and



our technologies enable enforcement of our control model. We are constantly refining our data governance principles and framework to comply with government regulations, and to use the information IBM gathers or produces appropriately.

Beyond initial principles, effective data governance ultimately results from people, processes and technology working together organically and autonomically. IBM continues to devise better ways to integrate these elements across the enterprise:

- *All IBMers must certify periodically to our Business Conduct Guidelines, which in addition to many other instructions and prohibitions govern our use of multiple kinds of information: employee privacy; proprietary information; intellectual property rights; recording, reporting and retaining information; information owned by others; and inside information and insider trading.*
- *To enhance IBM's data governance capabilities we're consolidating our customer databases so we will have a more finite view of our customers and the permutations of their data.*
- *Using IBM identity and access control technologies, such as our Tivoli brand products, we can help limit access to sensitive information that should be available only to appropriate parties.*

In addition to these measures, we have formed the IBM Data Governance Council, a group of leading companies, institutions and technology solution providers working with IBM to clarify and resolve common data governance challenges and to explore solutions as they relate to security, privacy, trust and corporate compliance issues.

The council's focus is on the management of data governance policy, the impact of policy on business processes and practices, and the enforcement of policy in IT infrastructure, content and organizational behavior.

Part of the council's mission is to develop a blueprint for the governance and protection of personal and organizational data within and between enterprises, and to understand how organizations can implement this data governance blueprint, using IBM and Business Partner solutions and research concepts.

As an ultimate goal for itself and for its clients, IBM seeks to transform data governance and compliance from yearly audits to real-time, change-driven, on demand business processes that continually assess risks, update policies and manage resources across the enterprise.

## Network and System Security

At IBM, we believe security should come standard with business—just as seat belts come standard in cars. Security should be built in, not bolted on, an organic part of the design and functionality of any solution. This philosophy is the driving force behind all our security efforts—internally, for clients, and in our positions regarding regulatory policy and industry standards.

To truly mitigate risks and threats, security needs to become embedded in all applications as well as business processes, physical and intellectual assets, and an organization's network of suppliers, customers and partners. Only comprehensive and flexible solutions can weather global political events, help meet regulatory and privacy demands, and withstand constant external attacks.

While IBM, of course, hopes to provide as many comprehensive security solutions to as many clients as possible, we are the first to agree that “single-source security” is impossible, as no one company or government can foresee, forestall or respond to every possible security vulnerability or incursion on private data.

IBM is working to help make businesses self-protecting so attacks can be automatically blocked and enterprises can keep up with security threats that are infiltrating systems at exponential speeds. IBM taps resources from across the entire company for security, while working with partners like Cisco and GE, and with the software development community, to extend security expertise and capabilities into new frontiers.

### SECURITY SOLUTIONS

IBM is a global leader in providing services and solutions for running a secure IT environment and responding to the many varied security risks and exposures that are part of today's networked world. With a concerted focus on security across all its business units, IBM is leading the way to more reliable, proactive security processes to help protect our own data, systems and networks and those of our clients. Such processes can include solutions that range from embedded, automated technologies that check a system's security compliance to leading-edge identity management software that controls who has access to systems and data.

## *Securing IBM*

IBM has a companywide security strategy in place to protect our employees' computer environments and our corporate systems and data. We are constantly refining our security requirements and processes to better combat all possible threats (from viruses, worms, hackers, spam, and natural and man-made disasters) and help keep our customer and employee information secure and confidential.

IBM leads by example in the security sector, taking the same holistic approach to our internal security solutions that we advocate to our clients. In all our efforts, our goal is to act rather than react and to prevent security issues developing before they become real problems.

- All IBM employees are required to comply with strict security standards and to protect their workstations with the latest software patches, antivirus updates and personal firewalls. Workstations can be equipped with an array of embedded security software and tools to help employees adhere to security guidelines and take necessary steps whenever threats arise.
- The security professionals of the IBM Virus Computer Emergency Response Team (CERT) monitor the landscape worldwide for mobile malicious software code and instruct employees regarding appropriate actions they should take or that IBM is taking. In addition to managing incidents of viruses affecting IBM's network and systems, the Virus CERT team architects, configures and supports virus-protection security solutions for IBM's worldwide internal user community that align with IBM corporate practices and policies. (These services are also available to IBM's clients.)
- IBM has largely automated the download process for critical security patches and has automated other functions as well, such as scanning machines for security compliance and downloading antivirus updates. Our goal is to transform internal security practices to the point of transparency and to enable systems and workstations to essentially protect themselves.
- A comprehensive communications system has been established to inform employees of security issues and enable them to report security breaches they may encounter.
- In 2003, IBM stopped more than 99.6 percent of the virus attempts to infect our network—nearly 7 million in total. Demonstrating the increasing urgency of such protection, through May 2004, IBM had stopped 29 million virus attempts.
- Most of IBM's leading offerings are used internally. In a similar vein, many of the innovations IBM creates for internal security purposes make their way into our products and our client solutions.
- IBM evaluates operating system releases and their effect on our own on demand environment and may customize their deployment if warranted for security reasons.
- IBM continually updates its security guidelines to remain in compliance with government regulations and new or updated industry standards, and to address emerging concerns as privacy violators become more sophisticated in their attempts.

## *Customer Security*

IBM's hardware, software, services, research and consulting divisions work together to deliver comprehensive, integrated security solutions to our clients in government and the private sector. IBM also offers clients increasing access to our excellent global threat monitoring services—the same ones we use to protect our own assets internally—to help them stay one step ahead of threats and attacks.

At IBM, innovation in security takes many forms—from advances in encryption technology and open standards to new chips and business methods. In our client solutions, we support a holistic approach that makes security part of the overall business solution as opposed to deploying piece-part applications. By helping clients integrate security across their systems, processes and locations, IBM helps put them in an assertive position and makes security more effective and easy to manage.

- IBM's global Security Intelligence Services (ISIS) is a subscription-based service that provides clients with vital information to help prevent, mitigate and/or remediate IT threats before those threats can impact business IT environments. ISIS makes its Global Network Security Business Index available to businesses worldwide. This monthly index assesses and measures network security threats and the broader business security landscape based on data collected by IBM's 2,700 worldwide information security professionals and 500,000 monitored devices.
- IBM's leading-edge Tivoli brand software is a key component in our security solutions. IBM Tivoli Security Compliance Manager automatically probes devices connecting to a network to flag noncompliant systems and enforce established security policies.  
  
IBM Tivoli Access Manager allows organizations to provide Web single sign-on and access control to applications and data and is designed to help let the right people in while keeping unauthorized people out. Access Manager lets clients extend their revenue-generating applications to more customers, Business Partners, suppliers and employees faster, without compromising security.
- Identity theft, computer hacking, and the cost of administering user IDs and access—as well as U.S. Homeland Security directives on government standards for employee and contractor identity—have made these issues of primary concern for both governments and private companies. IBM's Integrated Identity and Access Management Services provides extensive capabilities for managing user IDs and user access across an enterprise, combining IBM's own software and security innovations with expertise from Business Partners who specialize in ID technologies such as biometrics and smartcards. These offerings, announced in 2004, help protect data, computer systems, and facilities through user provisioning, identity administration, role-based access control, and delegated administration to authenticate users to multiple service providers.

## INNOVATION IN GOVERNMENT SECURITY

IBM works with government agencies worldwide to bring them into the digital age while addressing one of their preeminent concerns: protecting the integrity of their data and systems. Our work with a governing body in eastern France—the Group for the Computerization of the Land Register of Alsace and Moselle (GILFAM)—exemplifies IBM’s success at helping governments move to electronic processes with confidence and peace of mind.

GILFAM wanted to make the region’s land register widely accessible online, but had to provide privacy and safeguard against misuse. IBM worked with GILFAM to create a novel on demand land registry system that provides access to information while promoting the authenticity of digitized titles and deeds with digital signatures.

Using smartcards, biometric identification tools (that read patterns such as fingerprints) and time stamps, judges can sign registry documents in a digital fashion, making them available online for buyers, builders and lenders. As a result of the system created by IBM, the transfer of real estate titles can combine a highly secure system with robust user authentication to help maintain the registry’s integrity, as required by law.

IBM created new processes and supporting technologies specifically to support GILFAM’s mission and security imperatives. This innovative solution—a key to enabling more open, accessible government—can be useful not just for land registries, but for many other regulatory agencies requiring official approvals and notarizations.

## Security Innovation

Security has been important to IBM for a very long time. Industry milestones such as RACF (access control) and DES (data encryption standard, or cryptography) emerged from IBM more than 25 years ago and are still in use, having withstood the test of time. More recently, pioneering work has been done in penetration testing, antivirus research, and tamper-proof cryptohardware.

Our researchers are also involved in and publish at many key security conferences worldwide, such as IEEE Symposium on Security and Privacy, Crypto, Eurocrypt, USENIX Security Symposium, Esorics and the ACM Conference on Computer and Communication Security.

More information about IBM’s security innovations and research can be found at the IBM Research Computer Science: Security site: [www.research.ibm.com/compsci/security](http://www.research.ibm.com/compsci/security).

## PROJECTS

IBM Research is pursuing many important topics in the areas of network and computer security, as well as Internet privacy concerns, in several of its labs around the world, including our labs in San Jose, California; Haifa, Israel; Yamato, Japan; Yorktown Heights and Hawthorne, New York; Cambridge, Massachusetts; and Zurich, Switzerland.

**Cryptography:** IBMers are involved in many aspects of cryptography research, from the theoretical foundations of cryptography to the design and implementation of cryptographic protocols. In particular, researchers are exploring new directions in the areas of:

- *Universal composability of cryptographic protocols*
- *Secure multiparty computation*
- *Theoretical foundations*
- *Key exchange protocols*
- *New encryption and signature schemes*
- *Secure multicasts*
- *Threshold cryptography and proactive security*

More information on each of these cryptography research projects is available at the Cryptography Research Group site.

**Immune System for Cyberspace:** Computer viruses have been a companion of personal computers for more than a decade, and are estimated to cost billions. IBM has been building a defense against fast-spreading viruses for several years. The research project Digital Immune System for Cyberspace is designed to detect viral activity automatically during early spreading of the virus, to develop a cure, and to distribute it across the Internet faster than a virus spreads.

**Security Auditing and Intrusion Detection:** To develop tools that will help make e-business systems as secure as possible, we need a combination of proactive and reactive measures. Our research in proactive measures includes topics like vulnerability assessment and ethical hacking, while our work on reactive measures includes real-time intrusion detection and computer forensics. We also conduct research in high-assurance systems.

**Secure Coprocessors:** Many applications rely on computation that occurs in remote devices, whether PCs, entrance hardware or portable equipment. However, such devices can be vulnerable to physical attack by people who would benefit from subverting the computation. If someone were to attempt to gain access through the remote device by altering or copying its algorithms or stored data, the entire application could be subverted. IBM's research has explored building high-end devices: robust, general-purpose computational environments inside secure tamper-responsive physical packages. This work has led to the physical security design for some earlier IBM cryptographic accelerators and contributed to FIPS 140-1, the standard used by the U.S. and Canadian Governments for secure devices.

**SINTRA:** In times of malicious coordinated attacks by hackers or cyber terrorists, the need for intrusion-tolerant systems is heightened. In particular, servers holding access keys are likely targets, and to protect them, they are often replicated and distributed. To facilitate this, IBM Research has developed SINTRA (Secure INtrusion-Tolerant Replication Architecture), a protocol suite to help secure, fault-tolerant service replication in asynchronous networks such as the Internet. Using randomization, novel customized cryptographic tools, and optimistic methods, SINTRA is designed to provide the first practical protocols that do not rely on any timing assumption, while tolerating active coordinated attacks.

**Secure Hypervisor:** Virtualization is a proven server consolidation technology that has been available on IBM machines for decades. The controlling component behind this, the hypervisor, is responsible for creating and managing partitions in which guest operating systems reside. The secure hypervisor project extends traditional hypervisor concepts by adding controlled sharing and flexible access control (for example, MLS, RBAC, DTE) for communication between partitions, efficient resource control and usage metering for individual partitions, auditing, secure services and trusted computing capabilities.

**The MARS Cipher:** MARS is a shared-key (symmetric) block cipher, supporting 128-bit blocks and variable key size. It is designed to take advantage of the powerful operations supported in today's computers, resulting in a much improved security/performance tradeoff over existing ciphers. As a result, MARS is considered to offer better security than triple DES (the current data encryption standard) while running significantly faster than single DES.

**Theoretical Foundation of Quantum Information Processing:** IBM is producing groundbreaking contributions and original key concepts in the nascent field of quantum computing. With the semiconductor industry approaching a degree of miniaturization where quantum effects will become important, people are contemplating the construction of workable quantum logic and communication devices.

**Event Correlation for Tivoli:** The Zurich Correlation Engine (ZCE) is a compact, Java-based, fast, real-time correlation engine. It supports a wide range of correlation requirements with maximum performance. Its unique "rule replication" function allows a single rule to automatically handle multiple instances of the same event signature. Its compact size makes it possible to deploy multiple, distributed correlation engines in an enterprise, allowing scalable correlation. As implemented in Tivoli Risk Manager, it correlates security information and risk alerts from firewalls, routers, networks, host- and application-based detection systems, desktops and vulnerability scanning tools.

## Business Recovery and Continuity

Events in recent years have highlighted the importance of recovery and continuity for organizations of all sizes. Disasters and emergencies can have wide-ranging effects, far beyond the direct impact on the lives immediately affected. However, while contingency planning for most businesses and government agencies has often included plans for such things as manufacturing processes or secure communications, the actual data and information technology an enterprise relies on has only recently been understood as central to the operations, and even survival, of the enterprise itself.

IBM's Business Continuity and Recovery Services (BCRS) is part of an overall schematic that removes separation between business operations and the information technology that supports those operations. The IBM BCRS team can prepare clients for all sorts of disasters—both natural and man-made. These dangers—coupled with the race to meet new compliance requirements—are driving companies to embrace proactive business continuity planning built around resilience.

We define business resilience as the ability to rapidly adapt to and respond to risks as well as opportunities, to maintain continuing business operations, to be a more trusted partner and to enable growth. Business resilience represents a shift from the old paradigm of “experience and react” to a new paradigm of “anticipate and adjust,” which is achieved through comprehensive risk management that integrates business continuity, recovery, high availability and security strategies.

IBM clients work with IBM to integrate products and services—disaster recovery, business continuity, high availability, security and more—with the production side of their IT operations, using an IT infrastructure that can scale up and scale down, depending on the need.

In the event of disaster, IBM’s BCRS clients are able to use one of IBM’s 107 recovery sites in 77 countries worldwide. There they have access to the computer systems, peripherals, network connectivity and communications equipment—as well as IBMers skilled in operational, technical or administrative functions—that are needed to help their enterprise recover as quickly and efficiently as possible.

## Privacy Commitment

In IBM’s view, individuals dealing with our company should have the ability to determine for themselves when, how, and to what extent information about them is communicated to others. We seek to provide opportunities at every turn for individuals to exercise control over the way their personal information is used. Furthermore, we provide full disclosure on how IBM gathers and uses personal data as well as when and for what purposes it may be shared.

The issue of privacy transcends information technology and encompasses the full range of government regulation, local customs, personal choices and actions, as well as a company’s own standards of behavior. While the government clearly has a key role to play in safeguarding privacy, IBM believes the role of industry is equally important. Even in nations with strong data protection regulations, the private sector has the largest responsibility to develop workable processes to manage and protect personal information. On the policy front, IBM helps shape the privacy debate by working closely with government officials and business leaders while offering testimony on pertinent information technology issues.

At the heart of the issue of privacy is the concept of trust—earned trust. For their part—and in line with our value of trust and personal responsibility in all relationships—IBMers are required to adhere to the highest privacy standards and principles in their own dealings, guided by the utmost respect for every individual’s right to privacy. The company also expects them to help lead the debate, development and advancement of privacy matters in all industry sectors.

Their leadership explains IBM’s success in the research and development of privacy-enhancing technologies and how we’re able to spearhead collective industry efforts to implement standards and adopt appropriate privacy practices.

IBM’s own companywide privacy policies define our commitment to the protection of personal information from all our constituents. IBM has corporate instructions and a list of privacy standards and guidelines that apply across all processes, applications and Web domains and that must be followed when using the personal information of all customers, business partners, suppliers and employees.

We are constantly evolving our privacy policies because the underlying issues are very much alive. Yet as consumer, industry and regulatory expectations change, IBM remains resolute in its commitment to protect privacy, adhere to strict privacy and data protection principles, and remain at the forefront of privacy-enabling innovation.

Over the years, IBM has demonstrated its commitment to privacy in many ways:

- Three decades before the Internet era, IBM was among the first companies to adopt a global privacy policy, focused on employee information.
- As the Internet emerged, we continued to lead the industry with our privacy initiatives as we implemented one of the first global privacy policies for the Web and appointed one of the industry’s first corporate chief privacy officers.
- We provided seed funding and support for the establishment of independent Web trustmark programs, TRUSTe and BBBOnline.
- In the 1990s, we committed to advertise on a Web site only if it posted a privacy notice, and we influenced other advertisers to follow suit.
- IBM established the industry’s first comprehensive, global privacy research initiative.
- We have actively supported and participated in the development of promising privacy technology standards, including helping develop the Web standard P3P, or Platform for Privacy Preferences, for the World Wide Web Consortium (W3C).



## Privacy Innovation

IBM technologies help organizations manage their privacy practices and policies while giving individuals more control over their personal information. As an information technology provider, IBM actively supports the development of privacy technologies to help achieve these goals and create greater trust and confidence in the way personal information is handled.

For the marketplace, IBM has an extensive portfolio of privacy-related services—from technologies that help enterprises and individuals define privacy preferences, to leadership and solutions expertise for large companies and governments.

### PRIVACY RESEARCH

The IBM Privacy Research Institute was established in 2001 as an organization within IBM Research to promote and advance research in privacy and data protection technology. The institute is the first formal technology effort in the IT industry focused exclusively on developing privacy-enabling and data protection technologies for e-business, as well as privacy research in pervasive and mobile computing, knowledge management, and intrusion detection.

The institute receives guidance from an external advisory board, which includes privacy experts from academia, government and industry. Members include:

- Martin Abrams, Center for Information Policy Leadership, United States
- Dr. Ann Cavoukian, Information and Privacy Commissioner, Ontario, Canada
- Dr. Lorrie Cranor, Carnegie Mellon University, United States
- Malcolm Crompton, former Federal Privacy Commissioner, Australia
- Prof. Mary Culnan, Bentley College, United States
- Prof. Simone Fischer-Hübner, Karlstad University, Sweden
- Marit Hansen, Head of Section “Privacy Enhancing Technologies”, Independent Centre for Privacy Protection, Germany
- Jeff Jonas, Founder and Chief Scientist, Systems Research & Development (SRD), United States
- Dr. Tatsuaki Okamoto, NTT, Japan
- Prof. Alexander Rosnagel, University of Giessen, Germany
- Prof. Pierangela Samarati, University of Milano, Italy

The institute also receives guidance from its own executive board, consisting of IBMers whose expertise and responsibilities include leadership on privacy within the company. More information on the organization and governance of the IBM Privacy Research Institute is available at the institute’s Web site.

In 2004, the institute awarded its first Best Academic Privacy Faculty Award, worth \$10,000, designed to honor education faculty members for privacy-enhancing technology proposals, business process design concepts, privacy management best practices presentations, privacy-related curricula or other materials and technology concepts that focus on privacy and data protection management.

### Projects

The institute’s projects represent some of the leading thinking in privacy technology and policy:

**idemix (identity mixing):** This project is designed to prevent linking personally identifiable information to the person and thereby to provide anonymity. The idemix project also provides a deterrent to sharing one’s personal ID and password (i.e., “data parsimony”). idemix is based on the privacy-enhanced public key infrastructure, or PKI.

**Enterprise Privacy Architecture (EPA):** Using object-oriented methods, EPA maps parties, rules and data to new or existing business processes and gives organizations powerful privacy management controls based on consumer preferences, privacy best practices, and business requirements. EPA helps mitigate privacy risk and build customer trust by identifying applicable regulations and their requirements on the business, identifying what personal data is collected and how it is used, and communicating clear privacy statements to consumers.

**Radio Frequency Identification (RFID):** RFID is a technology with rapidly expanding uses in everyday life, whether for electronic toll collection, wireless cards for credit transactions, animal identification, or one of the many other possible uses to which electronic chips capable of transmitting information are being put to use—especially in the area of supply chain management. IBM is currently involved with RFID technology through research projects, standardization initiatives, and customer engagements, and we are working with industry partners to supply solutions for RFID. At all levels in the RFID architecture, IBM advocates the inclusion of technologies and policies to enforce appropriate security and privacy features to protect trading partners’ data confidentiality and consumers’ privacy.



**PeopleVision:** The objective of the PeopleVision project is to develop systems that understand human motion, using video cameras. One of the main systems that has been developed is the Smart Surveillance Engine—a software system that can automatically watch surveillance video, detect “alert” conditions such as abandoned objects or intrusion, and create a rich, searchable “Smart Surveillance Index” that can be browsed or queried to quickly find events in stored data. The PeopleVision project uses the same video-understanding software to deliver privacy-protecting video surveillance. Video streams processed by the PeopleVision system are broken up into component objects and recombined in a new video signal that contains information important to surveillance tasks (such as where people are and what they are doing) while hiding private information such as identity, race, age and gender.

**Federated Identity Management:** This is an experimental-phase project studying cross-domain Web authentication protocols like Microsoft’s Passport, SAML, the Liberty Alliance specifications, and the WS-Federation Passive Requestor Profile. Under proposal is a new “browser-based attribute exchange” (BBAE) protocol, which is more privacy-friendly than earlier proposals and can scale better to multiple enterprise federations without a single point of control.

**Privacy-preserving Data Mining:** This data mining through individual records allows individual records to contain “scrambled” (randomized) information, then applies an algorithm at the aggregate level to compensate for the randomization. The end result is protection of individuals’ privacy while still providing useful findings and statistics from the overall data.

**Hippocratic Database:** Currently, many companies find it difficult to manage the wide-ranging purposes for accessing information by individuals or organizations with different access rights. At the present time, there is no technology for privacy policy enforcement that is efficient and comprehensive. The IBM Privacy Research Institute proposes a database architecture that supports the automatic enforcement of privacy policies. Unlike existing methods, this architecture would not require customization of a company’s existing applications, resulting in easier installation and less customization, less overhead, and fewer maintenance costs. A Hippocratic database could equip an enterprise under the jurisdiction of regulations such as HIPAA, the Gramm-Leach-Bliley Act, the Japanese Privacy Act, and the Australian Privacy Act to help meet the demands of those regulations automatically.

**Declarative Privacy Monitoring:** Many business applications are today created in Java 2 Enterprise Edition (J2EE), an open source programming language that allows the application to be written once but run on multiple operating systems. By using declarative privacy monitoring technology, application developers and owners can separate the support for privacy in the application with the business processes inherent in the application, eliminating the need for a unique privacy solution for each business application created. This allows for the modification of privacy policies when needed without altering business applications that are already deployed and in use, and makes it easier for developers to embed privacy capabilities in applications.

**Java/SQL Privacy Monitoring:** This monitor enforces privacy policies in Java/SQL databases, acting as a “privacy firewall” for business applications to block database accesses not covered by the governing privacy policy.

## Awards and Recognition

- Computerworld magazine recognized IBM as the top company in privacy among Fortune 100 companies. (June 2003)
- Wired magazine recognized IBM as the top employer for workplace privacy. (September 2003)
- Reuters named IBM number one for workplace privacy. (September 2003)
- IBM was the first company to complete the internationally recognized Common Criteria security evaluation in the Web access management software segment. (October 2003)
- IBM was named “privacy company of the year” by The Privacy Manager, a Canadian publication, based on its international survey of privacy experts. (December 2003)
- Gartner, Inc., placed IBM Tivoli Access Manager in the Leader Quadrant in its 2004 Extranet Access Management Magic Quadrant report. (July 2004)
- Waters Magazine ranked IBM as the top provider in disaster recovery and business continuity services. (August 2004)
- The Yankee Group, a leading communications and networking research firm, listed IBM in the top 10 of most trusted security product providers. (September 2004)
- A consumer survey conducted by the Ponemon Institute and TRUSTe named IBM the most trusted company in Canada for privacy and one of the 10 most trusted companies for privacy in the United States. (October 2004)
- IBM Research-Zurich received the prestigious European Information Security Award 2004 for research and development of the Direct Anonymous Attestation protocol, which moves advanced cryptographic theory to industry practice and which was developed in collaboration with HP and Intel. (November 2004)



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