IBM: Green or Greenwashed?

By Marla Goodman An Exploration and Analysis of IBM's Sustainability Efforts

Introduction

IBM (International Business Machines) is a well-known company with a wide breadth of services and products. Some of these include information management, software systems, security services, and IT outsourcing. With a net income of 14.8 billion dollars and 426.75 employees across the world¹, IBM is truly an international player in the world of information technology.

Over the past forty years, IBM has made progressive efforts to become a more sustainable company across a variety of different platforms. For example, in 1967 IBM issued a corporate directive concerning pollution control and wastewater treatment². This in fact predates federal action in this area- the U.S. Federal Water Pollution Control Act was amended with similar requirements in 1972. However, though this action taken by IBM may appear candid on the surface, it is essential to investigate these actions in order to validate that IBM is in fact held accountable for their claims concerning sustainability. It is effortless to make statements concerning one's commitment to corporate social responsibility- it is much more difficult to substantiate these claims with credible third party auditing and verifiable evidence.

This paper seeks to accomplish several tasks. First, I will explore why IBM has chosen to portray itself as a socially conscious, sustainable corporation. I will also discuss which audience they are trying to illustrate this message to and what costs they undertake in order to do this (and why they feel that these costs are worth it). Second, I will look at how IBM portrays itself to the

¹ <u>http://www.ibm.com/ibm/us/en/?lnk=ftai</u>

² "40 Years of IBM Environmental Leadership" Report

public through its several different self-reporting mechanisms, and look at the goals IBM sets for itself. Third, I will look at the different third-party groups that have monitored IBM and whether they have affirmed or condemned IBM's efforts and how reliable these statements are. I will then explore IBM's past environmental missteps and how IBM dealt with the situation. I will also discuss a hypothetical environmental dilemma and explore how this possible situation would play out and how IBM could mitigate it. I will then end with my own conclusion about how successful I think IBM is at meeting the requirements that they place upon themselves compared with similar companies, and whether they could improve/further these goals.

Why Be Green? Reasoning Behind Green Standards

It is a commonly assumed that being environmentally responsible is a worthwhile endeavor that all companies, large and small, should make one of their highest priorities. However, if this assumption were true, we would live in a completely (or at least greatly) sustainable world. In reality, companies like IBM have a lot to gain in the short run -in terms of tangible profit-from taking shoreuts that may lead to environmental harm. It is therefore essential to explore why IBM has chosen to portray itself as a green company and what concrete gain they are making from this decision.

By has put a great deal of effort into branding itself as a green, sustainable company. On their website, they have an entire section named "Let's Build a Smarter Planet" where they explore how their technology is actively improving our ecosystem and environment. This section is divided into several different focuses including water, energy, and sustainability³.

³ http://www.ibm.com/us/en/

Furthermore, IBM has published several environmental and corporate social responsibility reports including: "40 Years of IBM Environmental Leadership", "Attaining Sustainable Growth through Corporate Social Responsibility", "IBM and the Environment Report", and "IBM Corporate Responsibility Summary". These reports range from sixteen to sixty two pages in length and describe IBM's concerns, practices, and goals in great detail. Clearly, IBM but put a great deal of time, effort, and funds into presenting themselves as a green company. According to IBM's Corporate Social Responsibility Report, the goal of IBM's sustainable practices is to create a better world in terms of protecting our environment and bettering humanity as a whole. A statement at the beginning of the report reads, "Corporations of better living for us all".⁴

However, if one delves deeper into IBM's resources, this overarching goal becomes more complex. Some of the further reasons listed for being sustainable (according to IBM) include competitive differentiation, regulatory compliance, and shareholder expectations (as seen in the pie-chart on the following page).⁵ In other words, one could say that IBM is an agent of the U.S. government, shareholders, and sustomers (both big businesses and individual consumers). This is key to understanding IBM's goals because now that we have identified their target audience, we can explore their primary strategy. First, let's look at the U.S. government. IBM works closely with the government in the area of sustainability focusing on issues such as water management, transportation, and carbon footprint.⁶ This relationship is very lucrative for IBM; IBM therefore has the incentive to follow government regulations in order to stay in their good favor. In other

⁴ IBM Corporate Social Responsibility Report, 2010

⁵/www.ibm.com/httpsmarter planet/us/en/green_and_sustainability/overview/index.html?re=CS1

⁶ http://www-935.ibm.com/services/us/gbs/industries/government/

words, IBM is following environmental regulations for their own benefit since the government is a valuable costumer.

This line of reasoning is also applicable to IBM's oth Benefits of eco-efficiency to organizations shareholders are very important to IBM- these shareholders h Participants at the 2010 IBM eco-efficiency jam ranked the benefits of sustainability. lobby for changes in company management if they are unhar 18.2% run. In order to prevent this situation (which could lead to sig occurring, IBM has the incentive to take the shareholders' 15.2% 7.6% Other Shareholde points of view (in terms of being environmentally expecta friendly) into account. Lastly, IBM offers solutions, technology, and services to customers as large as banks and automotive companies and as small as individual customers. All of these groups care about the environment to some extent- and it ultimately does not matter if these groups are only interested in saving money, appearing to be sustainable, or if they actually care about protecting the environment. reasons, IBM has the incentive to offer more sustainable and greener Regardless of these solutions. In fact, some companies are able to meet all of these goals, which is something that s, For example, on their website IBM states that one shipping company managed to IBM mentio simultaneously lower carbon emission by fifteen percent and cut costs by twenty-three percent.⁷ Clearly, it is apparent that IBM's main reasons for being sustainable are financial gain (or preventing financial loss), since by keeping the government, shareholders, and customers happy,

59.1%

⁷ http://www.ibm.com/smarterplanet/us/en/green and sustainability/overview/index.html?re=CS1

IBM can continue being a major supplier. Ultimately, these efforts are worthwhile for IBM because, in the end, it's all about the money.

Case studies: Criteria for Evaluation

In the following sections, I will explore several of IBM's initiatives and the g s that they have (according to their own self-reporting mechanism) succeeded in. However, since IBM has the incentive to portray itself in a positive light, I further investigate the third-party reporting groups and whether these groups' evaluations are credible. There are several different types of third-party organizations including private auditors, local governmental organizations (national and state), and global organizations. There are a variety of different criteria I use to judge whether these groups and their claims are credible. For example, I try to ascertain whether the group is truly an independent, third party organization or if they have a relationship with IBM that could positively skew their analysis for example, if the chairs of the organization also work for IBM). I also consider where the audits are being made- are they done on a plethora of random buildings/ factories, or, do they only concentrate on one specific geographic area? This is significant because it the audits are only done in one area (for example, the U.S.), geographic areas that may be less inclined to follow IBM's environmental guidelines may not be represented 's data. I also explore the results of these audits. For instance, if the results are published in IBM publicly on the auditors or IBM's website, this would be very credible because the results are open to the public. However, if the results are only accessible to a limited group (such as only to IBM leaders), then the findings are much less credible since IBM has the incentive to obfuscate negative findings and only highlight the positive aspects of the audit. For example, even if IBM

passed an audit done by a credible third party, if the requirements of passing only consisted of

IBM meeting its environmental goals by s represent a one-hundred percent success ra knowing this since the criteria and results



IBM details several different achievements in its Environment Report. One of these is the eleven point five percent reduction in its emissions compared to 2009.⁸ By the end of 2010, IBM had reduced its emissions by a total of sixteen point sever percent. According to IBM's report, this emissions cutting goal was a clear achievement, in fact, it was higher than their initial reduction goal of only twelve percent. IBM review on three different third party mechanisms to verify their CO2 emissions accompt suments. These groups are the Financial Industry Regulatory Authority (FINRA), the U.S. Environmental Protection Agency, and the ISO 14001 standard.

⁸ IBM Environmental Report, 2010

FINRA

FINRA is a non-governmental group that offers auditing services for businesses in order to insure investor protection and market integrity. The IBM audit by FINRA was done under IBM's participation in the Chicago Climate exchange that takes place in Canada, the United States, and Mexico. The audit involved selecting a sample of IBM's inventory data points in the areas of facility electricity, fuel, and PFC usage. After these samples were selected FINRA reviewed the billing data in order to ensure that it matched the sampled inventory data. The data was drawn from facilities in the above regions.⁹ This group seems creatible- they are a private third party organization-IBM employees have not served on the PU RA board of governors, and they have not served as chairmen. ¹⁰ This implies that the audits made by FINRA are not tainted by IBM's objectives- namely, passing the audit with **Byrge** colors.

Though FINRA appears to be a truly independent third-party group, there are other areas of concern. For example, the audits are only done in Mexico, the United States, and Canada. This does not seem credible in terms of BM's total CO2 emissions; even if the audits in these three countries were successful; IBN, operates in a variety of different countries and regions, including less developed countries. "Furthermore, many of IBM's manufacturing facilities are not located in the United States, and the CO2 and other waste that these factories produce is not being accounter the in this audit. In order to make these statements more credible IBM should allow these audits to be more geographically robust by allowing samples to be taken from their facilities around the globe. Lastly, the results of FINRA's audit are not available to the public.

⁹ http://www.finra.org/AboutFINRA/

¹⁰ http://www.finra.org/AboutFINRA/Leadership/

¹¹ http://www.ibm.com/planetwide/

Perhaps some of the information sampled in the audit was grossly inaccurate in comparison to IBM's claims, or perhaps some facilities were rated very poorly in terms of CO2 emission. Without access to FINRA's detailed results, there is no way of knowing how individual areas within the U.S., Mexico, and Canada are doing in terms of their CO2 emission. FINRA could easily remedy this issue by publishing their results online in an accessible location.

EPA

The Environmental Protection Agency (EPA) is a federal agency that has the goal of ensuring the health and safety of U.S. citizens by protecting the environment¹². This governmental institution oversaw IBM's carbon emissions goals through the EPA Global Climate Leaders Program. This program involves the non-mation of companies who demonstrate excellent environmental practices. Upon nomination, the EPA, the Association of Climate Change Officers (ACCO), the Center for Climate and Energy Solutions (C2ES), and other independent experts in the field audit these companies. The EPA Climate Leadership Program is very aware of the necessity of third party verification; in fact, they even specify that third-party verification is, "an essential component for evaluating and ensuring the veracity of the nominee's application, as well as the consistency and quality of the data submitted"¹³.

While this program initially appears to be reputable since it is an independent government organization, there are several aspects of this group and the award mechanism that need to be discussed in further detail. For example, there is the issue of whether having

¹² http://www.epa.gov/

¹³ http://www.epa.gov/climateleadership/awards/questions.html

governmental organizations verify a business is a more or less effective method in comparison with private auditing. While those who mistrust the government may favor private verification, I am more inclined to trust governmental organizations like the EPA. One good example that illustrates this belief if the Food and Drug Administration's (FDA) method of ascertaining the safety of drugs. After private companies research and produce a drug, the FDA tests the drug to insure its safety before the drug goes on the market. Some individuals may mistrust the method by arguing that the FDA is too closely connected to the drug companies and that these companies can easily influence the FDA's decisions. However, the counter-argument is that there is no better or more methodical way to test the safety of drugs (at least or one that we have encountered), and that if a drug was not FDA approved most people would not be willing to take it. In other words, governmental auditing is one of the back, most impartial methods of auditing.

On the other hand, though the EPA appears to be a reliable third-party, there are several other issues that need to be addressed. For instance, the EPA does not disclose who the "industry experts" that they gather information from are. This raises doubt in the authenticity of this award program since there is no way to ascertain whether these industry experts are related to IBM or not. This is troubling because if the experts are, in fact, also employed or associated with IBM, then they have an incentive to misrepresent IBM in a positive light. In order to remedy this use the EPA should publish its list of experts and specify these experts' company affiliation.

Another important issue with this program is that awards are given based on the sustainability goals that IBM sets for itself in terms of carbon emission. Because of this, IBM might be motivated to set easier, more attainable goals for itself in order to make meeting these goals more likely. Perhaps it might be more credible if the EPA sets CO2 emissions goals itself

and judges all companies by one standard (or several different standards based on the relative size of the companies being judged). For example, a goal could be set that all companies would need to reduce their emissions by 10%. This would ensure that companies do not set lower goals for themselves. Lastly, the EPA program is done on a yearly basis; once a company is recognized as being sustainable, the company does not need to participate in the audit at a later date. This is a possible issue because even if a company reaches a high level of sustainability on year, there is no guarantee that this company will continue to uphold this behavior. One possible solution to this issue is that the EPA could re-audit the companies every three to five years to ensure that the company is still operating by its earlier standards.

ISO 14001

The International Standard Organization (ISO) is a non-governmental, global organization that sets international standards for both the public and the private sector. ¹⁴ The ISO 14001 is one of these standards; it is voluntary and focuses specifically on environmental performance including CO2 emissions. In 1997, IBM was the first company to earn a global Environmental Management System standard. In order to achieve and continue to hold this certification, twenty of IBM's sites and registered entities are audited annually on a sampling basis.¹⁵

with the ISO are international organizations as opposed to private companies- there are several

¹⁴ http://www.iso.org/iso/home.htm

¹⁵ http://www.ibm.com/ibm/environment/iso14001/

other issues that need to be analyzed in further detail.¹⁶ For example, even though IBM has achieved a single global registration, this does not entail that all of IBM's products are certified under this standard. According to the ISO website the, "ISO 14001 registration does... include IBM's management system for developing and manufacturing products with improved environmental attributes, but it does not certify the resulting products nor is it product specific".¹⁷ This is extremely relevant because a great deal of IBM's activities inclusion he production of technical equipment, which implies that an entire sector of IBM's activities may not meet the ISO 14001 standard of sustainability. Furthermore, this certification does not cover the companies that produce parts for IBM, and therefore these companies are not even considered in the ISO 14001 standard. This is troubling because these sectors are the ones that may be in most need of environmental auditing. Another important issue is the fact that IBM does not require these supplier companies to uphold the environmental standards specific by the ISO 14001. The only step that IBM has taken to solve this issue is to send a letter to its suppliers encouraging them to uphold these standards.¹⁸ In my opinion, this is a very halfhearted and feeble attempt to appear sustainable IBM does not outline any strict requirements and there is no form of punishment if its suppliers fail to espouse these environmental standards. If IBM enacted strict environmental rules and guidelines to its suppliers and allowed the ISO to audit these groups as well as IBM's facilities, then the ISO 14001 would be much more credible. ct that the ISO only audits twenty sites is another source of disquiet; IBM has Lastly. hundreds of offices, factories, and third-party suppliers across the globe. Furthermore, there is no

¹⁶ http://www.iso.org/iso/about/organizations_in_liaison.htm?filter=I

¹⁷http://www03.ibm.com/procurement/proweb.nsf/ContentDocsByTitle/United+States~13+Apr+98:+ISO 14001?OpenDocument&Parent=Supplier+letters

¹⁸http://www03.ibm.com/procurement/proweb.nsf/ContentDocsByTitle/United+States~13+Apr+98:+ISO 14001?OpenDocument&Parent=Supplier+letters

information given on which sites are being audited. Perhaps only sites in the U.S. are being audited, which would not be a very geographically robust audit. This issue could be easily solved if the ISO published which sites it audited and what the results of those audits were.

Case Study Two: ENERGY STAR Qualified Products Another significant program that IBM works with is ENERGY STAR The Environmental Protection Agency (EPA) and the Department of Energy (DOE) set up this program and its purpose is creating labeling and energy efficiency requirements that companies can choose to meet.¹⁹ Once ENERGY STAR verifies that a company has met this requirement, they receive ENERGY STAR's environmental certification. Specifically, these products must meet, "minimum standards for power supply efficiency, idle power use or enablement of processor level power management".²⁰ A variety of different servers have been awarded with ENERGY STAR's certification, however, it is necessary to explore this certification process in greater detail to ascertain its credibility.

ENERGY SDAR follows specific guidelines when developing environmental specifications (as seen in the following chart). ²¹These are based on ENERGY STAR's guiding goals which include:

²¹ http://www.energystar.gov/index.cfm?c=prod d



¹⁹ http://www.ibm.com/ibm/environment/products

²⁰ http://www-03.ibm.com/systems/hardware/ener

nationwide energy saving realization, product performance enhancement with increased energy efficiency, effective labeling that allows customers to differentiate products, as well as a variety of other standards. While ENERGY STAR is a credible third-party (see the above discussion about government institutions like the EPA and their credibility), it is important to further explore their method of testing. ENERGY STAR laboratories must follow a specific protecture as outlined in the, "Standard Operating Procedure for Certification of Products to ENERGY STAR Specifications".²² These specifications are created by the EPA, and specifically outline the different testing standards that need to be met by appliances, office equipment, lights, fans, and other equipment (with ranging levels of technical complexity). Forthermore, the DOE provides laboratories with test templates that can be used when testing a variety of different products including air conditioners, faucets, and freezers.²³ However, even though laboratories contracted by DOE are required to use these templates in their certification procedure, EPA laboratories are not required to do so.

Overall, I believe this certification program is very credible, though there are several improvements that can be made. Namely, the EPA and DOE could cooperate to a greater extent by ensuring that both the EPA guidelines and DOE guidelines are used in both facilities. This would ensure that all/IBM products are measured by the same environmental standards. Another possible solution would involve the EPA and DOE creating a joint set of guidelines that can be used across the board. This is significant because after further investigation, it appears that DOE guidelines are more stringent in comparison with EPA guidelines. This is less than ideal because

²² http://energystar.supportportal.com/link/portal/23002/23018/Article/33284/Does-EPA-have-data-reporting-requirements-for-laboratories-testing-products-for-purposes-of-ENERGY-STAR-qualification-or-verification-testing

²³http://www1.eere.energy.gov/buildings/appliance standards/standardized templates for reporting.html

it implies that some ENERGY STAR certified products might have been judged under more lenient policies, which indicates that some products are less sustainable than others. Either of the two solutions indicated above would adequately mitigate this problem.

IBM's Environmental Missteps and Reporting Though IBM has a very good history in terms of sustainability and environmental awareness, IBM has made several errors in the form of accidental chemical releases.²⁴ For example, in 2010 fourteen separate releases were noted through R **E**nvironmental Incident Reporting System (EIRS). According to IBM's 2010 Environmental Report, the "root of the cause was investigated for all releases, and corrective actions were taken as appropriate...none of be releases were of a duration or concentration to cause long-term These releases included refrigerants, treated industrial wastewater, environmental impac antifreeze, fuel oil, and untreated wastewater. Furthermore, according to the report IBM received hundred and sixteen agency visits worldwide and IBM was not fined for any a total of on environmental misconduct. Also Fines and Penalties Worldwide

and the fine amount totaled to th

(\$ in mousands)					
	2006	2007	2008	2009	2010
Number	0	1	0	2	0
Fines	\$0.0	\$1.0	\$0.0	\$30.0	\$0.0

²⁴ http://www.ibm.com/ibm/respons

²⁵ IBM Environmental Report 2010

Though IBM's self-reporting efforts are admirable, there are several different issues with this method of auditing and reporting. First, IBM does not explain or even outline the procedures involved in its EIRS system. For example, it is unclear whether individuals are encouraged to anonymously report environmental incidents, or if department leaders are only permitted to do this. This is extremely relevant because if this reporting mechanism was public, then employees may be discouraged form reporting potential environmental incidents for fear of peristraent (such as demotion or being let go from the company). Furthermore, if only supervisors or department leaders are given the privilege reporting these incidents, they may have the incentive to obfuscate these issues which would lead to fewer incidents being reported.

Another potential problem with this form of reporting is IBM's statement that the errors leading to these accidental releases were solved. These statements are broad and cannot be taken at face value, namely because no proof is given. The specific information related to these releases is not available to the public-inffact, only a general description of the form of these releases is given. There is no way of ascertaining how much of these hazardous items were released- this is relevant because while one cup of wastewater may not be very dangerous, several thousand tons released into a stream would be extremely detrimental. Furthermore, though IBM has predified the types of hazardous waste that was released, there is no third-party group that the confirm or deny these statements. This is extremely significant because it is possible that IBM has only reported a fraction of its releases. Lastly, the statement that these releases did not lead to any long-term impact is very vague and not very credible. First, it is unclear how IBM defines long-term; is long-term ten years or one thousand years? We have no way of knowing since this information is not given. Also, there is no way to verify what sort of effect these releases led to. Perhaps the chemicals contaminated drinking water and led to

sickness in an area adjacent to one of IBM's factories. IBM could make these statements much more credible if it detailed why and where the releases occurred, specifically outlined what steps were taken to solve this situation, and include a credible third-party statement certifying what actions took place and what the exact environmental impact was.

Hypothetical Situation: How IBM Should Respond

Imagine that journalists have discovered that one of IBM's suppliers, "Computercon", (note, this is a fabricated company) uses extremely toxic chemicals in its production of servers in Indonesia. Though these servers are safe upon completion, the assembly method of the servers causes the release of tons of toxic chemicals to be released into the environment and has caused the destruction of a forest in Indonesia that supported a great deal of plant and animal biodiversity. How would this situation play out, and what could IBM do in response?

Under this hypothetical situation, consumers could respond by boycotting IBM products and publishing more information about IBM's poor environmental performance. While this could seriously hurt IBM's reputation it would probably not cause any serious financial loss for IBM. This is due to the fact that IBM is such a ubiquitous service and product supplier, and so many of its echnologies are currently being used by thousands of private and public companies across the globe. While individual consumers could choose to purchase another form of computer, it is simply not feasible for companies to immediately discontinue their use of IBM products. In other words, the type of products and services that IBM provide are make it very different from the Nike case- it is much easier for individuals to stop buying Nike shoes and for athletic teams to break their contract with Nike in retaliation. Furthermore, while shareholders and governmental organizations could put pressure on IBM and threaten to withdraw IBM's certifications, this process would most likely take a great deal of time and not lead to any immediate effect. In fact, governmental organizations would probably warn IBM before they attempt to annul any of IBM's environmental certifications in order to give them time to resolve these environmental issues.

Furthermore, it would probably take a very serious situation such as the one outlined above to provoke any significant response from consumers. One comparable example is Apple's suppliers' issues with human rights. There have been a great deal of articles published about these suppliers, and consumers have gone as far as creating petitions encouraging Apple to change its labor practices.²⁶ However, these accusations take not seemed to affect Apple's continuing success and financial gain; in fact, Apple stock has continuously increased over the past few months.²⁷ Even though IBM may nonsulfer financially from accusations of environmental misconduct among their suppliers, IBM could potentially suffer in terms of brand and reputation. IBM has spent agreet deal of time and effort making themselves known as a green, environmentally friendly, company (see Why be Green? Reasoning Behind Standards on page two of this report), and it is therefore in their best interest to respond to these accusations in order to ensure the strength of their brand.

Nike, would probably make a statement that it was unaware of these harmful activities. IBM may even go so far as to say that they are not culpable for these activities. This variety of response

²⁶ http://www.change.org/petitions/tell-apple-stop-slavery-practices-at-foxconns-manufactories

²⁷ http://investor.apple.com/

would not be very surprising- when people are accused of doing something wrong, the engrained human response is usually to deny these accusations. However, IBM should not take this course of action. As seen in the Nike case, consumers believe that companies are responsible for all of the actions of third-party suppliers. Furthermore, IBM should not argue that it has no way of controlling what its suppliers do. This argument is also invalid in the eyes of consumers IBM insures that the products made by third-party suppliers meet a certain level of quality, then IBM clearly has the capability of ensuring that these same suppliers meet IBM's environmental standards. The best action that IBM could take in this situation would be to say that it was unaware of these activities but is taking full responsibility for their supplier's actions and taking the steps to remedy the situation and insure that it does not happen again. Furthermore, IBM could have these efforts audited by a credible third-party overify that IBM's actions.

Comparison and Conclusion

There are several companies in the technology and consulting industry that also have large environmental initiatives, most notably Cisco Systems. Cisco, like IBM, has published CSR and Environmental Reports that highlight their progress. Some of these issues include the reduction of CO2 emissions, water conservation, electronic waste recycling, and value chain management.⁹⁸ Cisco even uses some of the same standards as IBM, including the ISO14001. Cisco also undertakes a great deal of internal auditing, which IBM also extensively uses. After researching Cisco's method of auditing in greater detail, I came to the conclusion that while their methods are widespread, they have not developed their efforts to the extent that IBM has. For

²⁸ Cisco Environmental Report 2010

example, IBM uses a variety of third party auditors for different aspects of its organization, whereas Cisco seems to use fewer auditors in comparison²⁹.

Overall, I feel that IBM's environmental and sustainability efforts are very commendable. They use a plethora of internal, national/governmental, and global auditing systems. While these methods have a variety of areas that could use improvement. I believe that their environmental claims are very credible and cannot be identified as "Greenwashing". Ultimately, if IBM improves its third party auditing by making it more geographically robust detailed, and available to the public, then they will reach the epitome of sustainability. abi

²⁹ Cisco Corporate Social Responsibility Report 2011

A Selection of the Websites Used in Research

- 1. http://www.ibm.com/us/en/
- 2. http://www.apple.com/

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