IT for Green: A Call to Action for the CIO

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As a CIO, in the past 18 months, you may have been involved in your organization's "Green IT" initiative, which has likely focused on reducing energy consumption in the data center or a power management strategy for IT assets. But what you may not be involved in is your company's transformation to becoming a "green business," that is, using IT for green initiatives. Chances are, your organization is undergoing a sea change. And the question is, "Are you helping to shape it?"

While IT organizations have been focused on ensuring that the technology being used is "green", it has been far less involved in providing the IT tools and services needed to support a company's overall green initiative. Manufacturers, energy companies, retailers, and financial institutions are some of the organizations charging down a path toward environmental sustainability. They are seeking to reduce their carbon footprint through a variety of approaches that touch upon building construction, product design, supplier relationships, energy production, and a host of other internal business processes.

These initiatives are not flying under the radar. They are getting a nod from boards of directors and staffed by senior executives. But what many of them are missing is counsel from the CIO. Industry Insights believes that IT will be pivotal to the success of many a sustainability effort. Databases will be used as emissions repositories. Supply chain management systems will include decision support for profitable proximity, where profit includes a green aspect. Analytics will analyze exposure related to asset portfolio or for service fleet optimization. Procurement and supplier relationship management applications will help evaluate criteria related to recycling-friendly materials, processes, or packaging. The list goes on.

As CIO, you have a unique opportunity to get in front of this sea change with "IT for green". Specifically, we see the following need for the CIO's involvement:

- **If you can't measure it, you can't manage it.** As regulators, shareholders, and customers become more concerned with what organizations are doing to be more green, there will be a shift from green as a marketing message to demonstrating accountability. Information technology provides the means to measure, monitor, report, and certify progress against goals. Much of the progress toward greener organizations is naturally being driven by reducing cost associated with raw materials, energy, distribution, and more. But at some point, the more difficult challenge will be incorporating environmental measurements such as greenhouse gas emissions and redefining "cost", especially as carbon comes at a cost.

- **Information is essential to knowing what to change.** Going green certainly involves complying with regulations and getting a green message out, but it also requires knowing what needs to be changed in the business process. Information technology serves up the information for shaping a green strategy. For example, with a "cost of carbon", having a supplier with close proximity may be more economical, even if the product they supply is more expensive. That may mean changing the approach to a manufacturer's supply chain. Applying an optimization routine to internal and external data helps a company to decide the best approach.

- **Sustainability requires a cross-company perspective**: Many CIOs are in a unique position to support the company's corporate citizenship and sustainability. As a cross-functional organization, a well-respected CIO understands all aspects of the business whereas individual business units may have siloed perspectives.

- **Sustainability requires a value chain perspective**: The CIO also is already engaged in collaborative initiatives with trading partners in his or her value chain. CIO's actively engaged in Collaborative Planning, Forecasting and Replenishment (CPFR), Global Data Synchronization (GDS), Vendor Managed Inventory (VMI), and other business initiatives underpinned heavily by information technology have already established relationships with their counterparts to pave the way for engaging across the broader supply chain.

- **Supporting sustainability will require IT.** Information technology will be a part of many sustainability initiatives, but not just because of the ubiquity of the technology. For example, an industrial gases manufacturer is using advanced analytics to improve the aerodynamic performance of compressors, and a manufacturer of turbine engines is using high performance computing to design a more fuel-efficient, lower-emissions airplane engine. And another example is a new way to communicate and collaborate with coworkers, customers, and business partners. Telecommuting has been around for awhile, but telepresence that will serve to limit air travel without removing "face time" is just taking off.

- **IT supports executing for change.** Going green may mean a new business model at the extreme, or at minimum changes in the way processes occur today. Although new applications or using applications differently requires a sufficient amount of training to ensure employees actually use the new functionality, the IT applications capture the new business processes and as a result, make it easier to move change ahead.

- **There's business risk in climate change.** The science of climate change can be argued, but the business that is not prepared for some of the effects that have recently been demonstrated will lose out. For example, as ocean levels rise, there may be an impact on underground utility lines close to shore. Government organizations are already taking advantage of complex weather models to prepare. For all business sectors, better choices for long term investments in site selection, building construction, and product sourcing partners are predicated on both near-term and long-term weather information.

IT for green is NOT a siloed initiative – collaboration is required across functional towers within organizations, across trading partner networks and across industry verticals. Each member of the business community makes decisions everyday that impacts every other participant. Technology needs to provide the tools to manage and measure IT's green impact as well as the innovations to reduce every company's environmental footprint as we drive a shift from talk and qualitative information to action, supported by quantitative analysis. Manufacturers and retailers need to work together to design more efficient supply networks, lower-impact packaging, and consumer recycling programs. Energy and utility companies need to join in this partnership and provide clean choices and good counsel on energy consumption and efficiency. And government organizations, including the EPA and the DOE, need to continue providing mechanisms for identifying and promoting environmental goals and allowing leaders in the government and commercial world to set an example for others.

The role of the CIO in all of these partnerships and within the business is more than an order taker, bigger than a cost center. IT is a partner for business innovation, and business innovation today involves green. Companies like Alcoa, Dell, HP, IBM, and Wal-Mart are already taking the lead. IT budgets shrink and grow with the economy, with financial performance, with initiatives for competitive edge, and still the CIO must support the business and anticipate where the business needs IT to support change. CIOs that understand their role in supporting new green business projects will come out ahead.

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