Chapter 6.8
Strategies for a Sustainable Enterprise

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ABSTRACT

Companies with successful environmental and sustainability programs recognize the need for these programs to be enterprise-wide. Ad-hoc efforts are difficult to scale, manage, repeat, or improve upon. Just like any enterprise-wide program, the issues and requirements of a sustainability initiative are complex and multidimensional. Processes, applications, infrastructure and operations must be aligned with the business goals and requirements. Underlying all of this is the fact that both greenness and sustainability require a robust and adaptable IT infrastructure. This chapter applies the lessons learned from effective use of enterprise architecture (EA) to sustainability initiatives. In particular, it focuses on facilitating the alignment of business visions encompassing financial, environmental, and social responsibility with processes and operational capabilities. Using an architectural approach leverages the key practices that are already in place in successful organizations to drive enterprise-wide sustainability efforts.

INTRODUCTION

One of the key lessons that corporations have learned in the recent past is that thinking and practicing green and being sustainable makes business sense. This is particularly so for large corporations who have shifted from significant polluters to focusing on reducing carbon emis-

sions. For some, this emphasis on the green and sustainability phenomenon is nothing less than a complete turnaround of perception in the marketplace. There appears to be a competition to lead and champion the cause of green and sustainable enterprise.

For example, Wal-Mart uses LED lights in its freezer cases and is installing white roofs on its new buildings, lowering both its costs and carbon emissions (Wal-mart, 2009). In 2007, the company also reached out to its customers with an in-store education program to encourage replacement of incandescent light bulbs with compact florescent bulbs (Sanders, 2008). *Newsweek* magazine recently published a ranking of the "Greenest Big Companies in America" (McGinn, 2009). Whether it is about saving money, complying with governmental guidelines and regulations, promoting one's organization or company, or expressing genuine concern for the environment, corporations, nonprofits, academic institutions, and others have begun to identify themselves as "green and sustainable" or as "going green."

Increasing numbers of enterprises understand and accept the strategic benefits of sustainability. However, not every organization has the same issues or requirements when heading down the sustainability path. Manufacturers, healthcare institutions, and the travel industry face many of the more complex issues. Yet "cleaner" industries, such as professional associations, software companies, nonprofits, law offices, and governmental agencies, have different, but just as pressing, concerns about green and sustainability. In between these extremes, lay retailers, academia, and financial institutions.

Sustainability includes environmental issues facing businesses, like energy efficiency, greenhouse gases, water use, management of toxic waste, and so on. At the same time, a company's focus on sustainability issues raises concerns, such as workplace safety, community investment, employee acquisition and retention. Despite its growing importance, it is obvious that

business leaders will not adopt green strategies or sustainability without solid justification, metrics, and compelling regulatory reasons to do so (Unhelkar, 2010). As businesses are formulating their sustainability strategies they are asking the following questions:

- How green and sustainable can a given business operation or process be? What opportunities exist for efficiency improvements or risk elimination so that the business process is green and sustainable?
- What environmental regulations must an enterprise comply with? Are there any incentives, financial or otherwise, available for compliance?
- How green can a building or a facility be? What incentives might be available if a building or facility becomes more green and sustainable?
- Are our procurement and supply chain processes sustainable?
- How much data or information may be redundant? Will elimination of redundant data reduce storage requirements and provide better efficiency of a data center?
- What standards exist — or might be in development — that allow an organization to measure, monitor, and report on its levels of green and sustainability?
- How can we monetize our small carbon footprint? Has the carbon credit become a global currency that we can bank? The bottom line is: "Can we cash in on some aspects of our greenness and sustainability?"

Often these questions either have no answer or have too many answers. The overarching questions are: Once an organization has identified the motivation for and articulated their vision of sustainability, how does it integrate that vision throughout the enterprise? How will it continually improve sustainability into the future? Both the questions and answers permeate many aspects of

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