Chapter 13
Business Processes Management for a Green Telecommunications Company

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ABSTRACT

The concept of Green ICT has been in consideration in almost all industrial sectors. The Telecommunication (Telco) sector in one such major area where Green ICT plays a crucial role. Telcos have opportunities and treats due the Green ICT initiatives. This chapter outlines these implications and proposes a Green Telco business model to match with Green ICT initiatives. This chapter then proposes the way and methodology to achieve Green Telco business model through the Business Processes Management based on more practical aspects. The concept of Business Processes Management (BPM) framework is initially discussed in its four stages. This is then followed by the use of this BPM framework to transform and manage business processes for a Green Telco. The business transformation to Green Telco is discussed as part of a BPM framework made up of the Strategy stage, Design stage, Realization stage and the Operational stage. This chapter finally concludes that the Green Telco business model is not a destination but a continuous journey and the BPM framework provides an excellent basis to achieve those Green Telco goals.

INTRODUCTION

The present global situation is such that it compels every industry to consider the environment in its decision making process. This environmental context is particularly vital in a Telecommunications (Telco) organization. This is so because the Telecom sector is inundated with substantially large amount of infrastructure that consumes large amount of energy – resulting in significant carbon generation. While typical banking, insurance and related service sectors also generate carbon, a large part of that carbon generation is obvious and measurable relatively easily, as compared with the Telecom carbon generation. For example, the desktop machines of a bank are visible to the

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user. Therefore, attempts to change user attitude (such as switching-off the computers when not in use) can and do produce results. Contrary to that, the Telco industry has infrastructure such as transmission towers, large switch gears, substantial wired and wireless relays and myriad servers and other computing equipment backing up the services. These are all unique features of Telecom industry – over and above the 'normal' carbon generation through its Billing Support Systems (BSS), Operational Support Systems (OSS) and Customer Relationship Management (CRM) – to name but a few. Therefore, it is vital for the environmentally conscious decision making process in a Telco to be all inclusive – incorporating what happens within and outside of a Telco. A cost effective, environmental friendly and sustainable business model is crucial to the Telecom sector more than any other sector. This chapter explores the challenges that the Telecom industry faces in terms of the environment. This chapter outlines a Green business model that is specific to the Telecom industry. This chapter also discusses the ways of transforming present Telecom business model into a Green business model. This chapter further proposes how business process modeling can be effectively carried out to reduce the harmful effects of carbon by optimizing these processes within a Telco.

GREEN TELCO BACKGROUND

The Asian telecoms business & technology magazine, called the *Telecomasia,* in its December 2009 issue has the cover story *2020 vision* that correctly identifies a key theme: "The hardest decisions will not be about technologies, but the business models to monetize them" (2020 Vision, 2009). The telecommunication service provider industries are evolving around technologies and build competitive advantages mainly based on advance technology adaptations. This, however, has negative impact on the industry's environmental credentials. The present environmental context is changing the way a Telco operates – requiring it to reduce cost of new technologies, reduce time to adapting new technology, raising the level of service against new competitors, keeping abreast of the global economical trend and promoting customer service. Each of these aspects, however, require the Telco to be fully aware of the environmental context of its decision making process. Thus, the need to create and adopt suitable business process models to tackle the various aspects of the business and, at the same time be environmentally aware, cannot be overemphasized.

A green business model is all about efficient business. Therefore, a green business model will ensure that no money, time or other resources of the Telco are wasted and, at the same time the company derives environmental benefits. For example, measure and control greenhouse gas emission, take future investment decision to replace legacy systems and networks with environmental consciousness (Next Generation Network and Gigabit Passive Optical Network migration over legacy network) and new products & services with enabling effect of ICT. (Kounatze, 2009)

Researchs shows that "2% of global carbon emissions come from the manufacture and use of Information and Communication Technology (ICT) and it is growing" (Gartner, 2007) This implies that the 98% of global carbon emissions are by other industries such as travel, transport, hospital and, of course, Telcom. A Telco will have both ICT and non-ICT emissions covering the entire gamut of emissions. There are many opportunities for a Telco industry to limit or reduce the environmental impacts as a socially responsible organization. A green business model for a Telco is to make use of opportunities created by environmental issues and climate changes. A Telco with green business model will be in good position to provide total solution to subsititute services of other industrial sectors, for example, need for travel could be reduce by teleworking or teleconfrencing solution (Faulkner, 2008).