Chapter 1


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ABSTRACT

Green computing, also called green equipment, is the environmentally sustainable to use of computers and related resources like - monitors, printer, storage devices, networking and communication systems - effectively with minimal or no impact on the environment. Green cloud is a catchphrase that refers to the potential environmental benefits that information technology (IT) services delivered over the Internet will present society. The word combines the words green meaning environmentally gracious and cloud, the traditional image for online and the shortened name for a type of service delivery model known as cloud processing.

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INTRODUCTION

Green Enterprise Computing refers to how business or corporate sectors can deal with the vision of Green computing to manage power utilization and boost energy efficiency. Green Computing or Green IT is the study and practice of using computing resources in an ecological manner to tone down the environmental impacts of computing. All these, in turn, bring up the issue of reducing immoral use of resource and power Green computing whose goals are to reduce the use of perilous materials, maximize energy efficiency during the product’s lifetime, and promote the recoverability or biodegradability of redundant products and factory waste. Computers today not only used in offices but also at homes. This can be called as Green Computing. We use Green Computing because it reduced energy usage from green computing techniques translates into lower carbon dioxide emissions, stemming from a decline in the fossil fuel used in power plants and transportation. Conserving resources means less energy is required to produce, use, and order of products, saving energy and resources saves money. Green computing even includes changing government policy to promote recycling and lowering energy use by individuals and businesses.

Green Cloud computing can be used to manage efficient processing and utilization of computing infrastructure and reduce energy consumption. It is needed for ensuring that the future development of Cloud computing is supportable else, cloud computing with growing front-end client devices interacting with back-end data centers will begin a huge escalation of energy usage. Green Computing is also defined as designing, manufacturing/engineering, using and disposing of computing devices in a way that reduces their environmental impact. IT department is usually always the one department that uses the majority amount of power which in turn is an unnecessary amount of “Green computing” represents environmentally responsible way to reduce power and ecological e-waste. Virtualization, Green Data Centre, Cloud computing, grid computing, Power optimization are the technologies of green computing. Main goals of green computing are to condense the use of poisonous and hazards materials and progress the energy efficiency, recycling of factory waste. Cloud Computing is a model for delivering services in which resources are retrieved from the internet through web-based tools and applications, rather than a shortest connection to a server. Data is stored in servers. Cloud computing structure allows access to information as long as an electronic device has access to the web. This type of system allows human resources to work distantly. It enables hosting of applications from consumer, scientific and business domains. But data centers hosting cloud computing applications consume enormous amounts of energy, causal to high operational costs and carbon footprints to the environment. With energy shortages and global climate modify leading our concerns these days; the power consumption
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