

Green Computing

TECHNOLOGY SPOTLIGHT

Green IT refers to minimizing the impact on the environment of designing, manufacturing, using and disposing of computers, servers and associated peripherals such as monitors, printers, storage devices, and networking and communications systems. The goals are to reduce the use of hazardous materials, maximize energy efficiency during the product’s lifetime and promote the effective recycling of the technology at the end of its useful life.

Green IT is more than just the products and their life cycle; it is how they are used. Simple procedures can be implemented, such as powering down systems and lights-out processing sites. Green IT also involves rewriting programs to run more efficiently or on implementing new technologies that consume less electricity. It can involve providing more electronic access and self-reporting, techniques used by utilities that allow consumers to view their bills and make payments online. Green initiatives that focus on “low-hanging fruits,” especially conservation-based efforts such as energy-efficient devices, power-saving strategies, eliminating excessive use of resources, etc., can yield the dual benefits of protecting the environment and saving money.

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Companies are looking to green computing to differentiate their business and attract environmentally conscious clientele. They are asking how they can embrace green technology and save energy, what areas they should consider and what tools and techniques have proven successful. They want tools to track green IT initiatives and, as a benefit, to reduce their power consumption.

Description

The use of “green initiatives” to make technology more environmentally friendly by reducing power consumption and encouraging responsible disposal/recycling of technology equipment.

Importance

Apart from the benefits of consuming less electricity, green computing will establish the organization as environmentally conscious.

With the growing trend for companies to embrace sustainable practices, stakeholders will view environmentally conscious business decisions favourably. Green IT can be tied to brand management.

Business Benefits

Businesses can benefit from pursuing a green computing program, including:

- Reduced costs for electricity, air conditioning and other utilities;
- Recycling may bring in additional revenue;
- Being seen as “green” may provide the business with additional kudos and favourable publicity.

Issues and Risks	Possible Mitigation
<p>An organization that fails to consider the environmental impact of its technology may be viewed negatively by its stakeholders, resulting in bad publicity and potential loss of customers and investors.</p> <p>Failure to establish appropriate green IT initiatives supplemented with effective monitoring and reporting may result in a lack of environmental impact information, unfavourable publicity and even a loss of carbon credits in some jurisdictions.</p>	<p>Develop and implement a green computing policy.</p> <p>Promulgate the green computing policy throughout the organization.</p> <p>Create employee and public awareness campaigns to promote the organization’s green IT initiatives.</p> <p>Regularly assess policies, procedures, technology and monitoring to ensure that the entity’s reputation and marketplace eminence are not disadvantaged.</p>

Issues and Risks	Possible Mitigation
<p>The organization may incur more costs due to unfriendly environmental practices that lead to inefficient use of resources.</p>	<p>Review all IT activities and identify high uses of electricity, heat, air conditioning and other environmentally sensitive consumption or activities.</p> <p>Review physical locations and consider moving high HVAC consumption technology to more environmentally friendly locations.</p> <p>Document current energy consumption and monitor changes for possible carbon credits.</p> <p>Review, replace or mitigate high resource consumption hardware and software, peripherals and infrastructure.</p>
<p>Carbon-sensitive business partners may avoid the organization's products or services if they are not "green."</p>	<p>Document, record and attempt to minimize the organization's carbon footprint, particularly where IT is involved.</p> <p>Document current energy consumption and monitor changes for possible carbon credits.</p> <p>Create a green IT awareness program and report environmental improvements amongst employees, business partners, key stakeholders and the public.</p>
<p>Green computing initiatives will need to be sustainable in the long term and will require appropriate data measurement and capture systems.</p>	<p>Implement policies that include green considerations as an integral part of software development, hardware acquisitions and IT operations.</p> <p>Establish baseline metrics and capture and report information on changes and improvements resulting from green IT initiatives.</p>
<p>Failure to address green computing could result in increased costs through carbon taxes and other fines and penalties.</p>	<p>Implement a process to monitor legislation, regulations, etc. to ensure that the business is taking proactive steps to minimize any future taxes or costs.</p>

The matrices accompanying each Technology Spotlight are designed to create interest and awareness of some of the benefits, risks, issues and risk-mitigation strategies and techniques and are not designed to provide an exhaustive list of issues, risks or solutions. Readers are cautioned to seek professional assistance when addressing these technologies.

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