IT BEST PRACTICES: GREEN ORGANIZATIONAL STANDARDS

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ITMA XVI

"California IT – A Commitment to Green"

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RECOMMENDED BEST PRACTICE

Departments should implement standards, policies, and procedures that reduce IT energy usage, to reduce environmental impact and to realize operational cost savings.

BENEFITS

Many sources of energy waste by Information Technology (IT) systems can be addressed through standards, policies, and procedure changes, whether at department, agency, or statewide levels. Without such standards, IT system requirements will often be driven solely by business and technical goals and will fall short in addressing energy savings or enterprise-wide efficiencies. Policies that support Green IT can help drive the needed technical, organizational, and budgetary changes towards adoption of greener technical solutions and practices.

Benefits that can be derived from these standards include:

* Reduced environmental impact and realized operational cost savings.

* Improved recruitment efforts for State of California due to a desire to work for environmentally aware organizations.

* A worthy contribution to the environment we live in to improve the world for tomorrow.

* Reduced environmental impact and realized operational cost savings.

* Growth of public confidence in the State of California actively caring about the environment we live in, thereby contributing to make the State of California greener.

This recommendation is in line with the California 2009 IT Strategic Plan Concept 5: Economic And Sustainable Strategy 1: Promote practices that protect the environment and reduce energy usage and also supports Supplemental Report of the 2007 Budget Act Item 0502-001-9730 1 – Office of the Chief Information Officer Section 7.4, Develop a plan to minimize the environmental impact and increase the energy efficiency of state IT resources.

RECOMMENDED STRATEGIES FOR IMPLEMENTATION

* Set standards and policies requiring adherence to the Green Component when acquiring and/or implementing IT equipment.

The following order is recommended:

1. If it's feasible to host service on a virtual server, then utilize virtualization

2. If it's feasible to host service on existing infrastructure, then do so (consolidation)

3. If the first two options are not feasible or there is a business case to be exempt, then purchase IT equipment that is Energy Star compliant, EPEAT certified and environment friendly

- Trade your organization's State of CA fleet vehicles with environment friendly vehicles (electric, hybrid, bio-fuel). DGS now offers environmentally friendly vehicles. Use of these vehicles demonstrates to the public that the State of California is serious about going green and is making efforts towards being environmentally friendly – seeing is believing!

- Set standards and policies for teleworking, and make it more feasible. Utilize ITMA's published Telework guidelines for managers and employees as well as a listing of telework training resources. Explore if its' feasible for departments to go to a four day work week. State of Utah has been very successful in implementing a four day work week for all state departments.

- Set standards and policies to centralize specific components of the IT infrastructure at the appropriate level, whether departmental, agency, or data center. Examples include centralizing IT services and server hardware, software inventory and patching, antivirus, encryption, authentication, e-mail, databases, web servers, and backup.

- Set standards and policies to utilize low power computing devices. This can include use of EPEAT certified desktops and notebooks, use of notebooks instead of desktops, and use of low power thin client devices.

- Set standards and policies to eliminate any old CRT monitors, only LCD monitors should be used.

- Set standards and policies to shut down desktops and notebooks at night, and identify a specific exception process for those which must remain on.

- Set standards and policies for printers that restrict usage of personal printers, require power saving mode, require double-sided mode (duplex) as the default, and reduce printing in general.

- Set standards and policies to require use of virtualization on new servers and new applications, and to set targets for conversion of existing servers to virtualization.

- Set standards and policies for data centers to monitor and report energy utilization to executive leadership, to create accountability for efficient energy usage.

- Set procurement standards and policies that require specific green IT elements to be included in vendor bidding requirements, e.g. compliance to EPEAT standards, and mandatory use of virtualization.

- Set standards and policies to ensure appropriate disposal of IT equipment, e.g. recycling or re-use.

REFERENCES

Data Center Consolidation, Virtualization and Energy Usage

Green IT in Enterprise Practices: The Essential Role of the State CIO bottom of page 6 through Page 10 http://www.nascio.org/publications/documents/NASCIO-GreenIT.pdf

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http://www.govtech.com/gt/articles/312695?id=&story_pg=2

State of Oregon Policy adopting EPEAT standards:
http://oregon.gov/DAS/OP/docs/policy/state/107-009-0050.pdf

State of New York Award of Excellence, included EPEAT standards:
http://www.ogs.state.ny.us/aboutOgs/pressReleases/2008/BestPracticeAward.htm

Shut Down PC's at night

Cost of everyone leaving their computer on is $1,720,000,000-
http://www.ecogeek.org/content/view/739/85/

The US PC Energy Report 2007 detailing the results from the research (available for download below) reveals some staggering findings - http://www.1e.com/energycampaign/index.aspx

Getting everyone to turn off computers overnight and on weekends would reduce energy use nationwide by an extra 7 billion kWh/year, equal to three 500 MW coal power plants.
http://www.conservation.org/act/simplesteps/green_work/Pages/office_electronics.aspx

Green IT in Enterprise Practices: The Essential Role of the State CIO bottom of page 6
http://www.nascio.org/publications/documents/NASCIO-GreenIT.pdf

Green IT – Dealing With the New Industry Shockwave – Part 2" Gartner Presentation by Simon Mingay for Gartner Symposium ITXPO 2007.

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www.climatesaverscomputing.org/tools/pwr_mgmt.html

Climate Savers Computing Initiative White Paper, November 30, 2007
http://www.climatesaverscomputing.org/media/whitepaper11302007.pdf

Kansas Department of Administration, Division of Information Systems and Communications (DISC). FY 2007 Annual Report (page 6). www.da.ks.gov/disc/AnnualReportFY07.pdf

Terra Novum, EZ GPO Tool www.terranovum.com/projects/energystar/ez_gpo.html

End of Life Disposal

EPEAT - http://www.epeat.net, http://www.epeat.net/FastBenefits.aspx

DGS Buy Green Best Practices Manual:
http://www.green.ca.gov/EPP/Introduction/understand.htm

DGS Strategically Sourced IT Hardware - PC Goods
http://www.pd.dgs.ca.gov/StratSourcing/ITHardwarePCGoods.htm

DGS Environmentally Preferable Purchasing Requirements:
http://www.pd.dgs.ca.gov/deleg/PAMchapter03.htm#t9

State Administrative Manual for IT sale, exchange, transfer or disposal requirements
http://sam.dgs.ca.gov/TOC/5900/default.htm

DGS Office of Surplus Property Reutilization process for IT disposal
http://www.ofa.dgs.ca.gov/OSPR/default.htm

California Greenin' Resources: http://www.ciwmb.ca.gov/EPP/Procurement/Resources.htm