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2011 Innovations Awards Application

DEADLINE: MARCH 28, 2011

ID # (assigned by CSG): 2011- _____

Please provide the following information, adding space as necessary:

State: New York

Assign Program Category (applicant): Natural Resources: Energy (Use list at end of application)

1. Program Name

   Energy Star Power Conservation/Desktop Energy Management

2. Administering Agency

   Chief Information Office/Office for Technology

3. Contact Person (Name and Title)

   Gina DiSarro, Project Assistant, Public Information Office

4. Address

   State Capitol
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   www.cio.ny.gov

9. Please provide a two-sentence description of the program.

To continue implementing sustainable, green IT practices, CIO/OFT executed an Energy Star Power Conservation Policy, which saved electricity and energy by hibernating any **state-owned** desktop computer when it is not in use. The computer monitor automatically powers down after 15 minutes of inactivity and the entire desktop hibernates after 30 minutes of inactivity (but can be easily woken for any software updates and patches, and by the user).

10. How long has this program been operational (month and year)? Note: the program must be between 9 months and 5 years old on March 28, 2011 to be considered.

Since March 16, 2010

11. Why was the program created? What problem[s] or issue[s] was it designed to address?

CIO/OFT supports a network of 35,000± desktop and notebook computers on behalf of customer agencies and internal staff. Customer agencies include: Office of Child and Family Services, Office of Temporary Disability and Assistance, Department of Labor, portions of Department of Health, Office of Medicaid Inspector General, and the Governor's Office of Regulatory Reform.

A number of factors, including a sustainable "Green IT" initiative and the need to plan for Microsoft Windows 7, led to this program:

- The need to reduce the high costs of energy and consumption of electrical power. Each of the 35,000+/- workstations throughout the state of New York require electrical power while in use for approximately 7-8 hours per day, making use of that electrical power very efficient. For the other 15-16 hours (24 hours on weekends and holidays), the workstations remain powered up, wasting energy each day.
- The need to upgrade the current operating systems on workstations. The current operating system on the workstations is Microsoft XP, which has been determined to be end-of-life at the end of 2012. Limited support has been received since April 2009 but a move to the new Windows 7 operating system will be necessary.
- The need to distribute software upgrades and security patches without limitations (impacting customers during business hours). Software upgrades and security patches that are distributed by SCCM (Microsoft System Center Configuration Manager) are essential to the integrity of the workstations and the overall security of the network environment for customers. However, due to limitations of the current operating systems and some hardware, workstations remained powered-up overnight in order to receive the security patches, anti-virus updates and other software distributed off-hours.

12. Describe the specific activities and operations of the program in chronological order.

This project was broken into two parts to complete the implementation of the Energy Star Policy: a Planning phase and an Execution Phase. Below, under each phase, are the major milestones for the project that assisted in completing the project objective.

Planning Phase
During this phase CIO/OFT conducted a small pilot to see how the Energy Star Policy would affect the user environment. Over the course of the pilot, CIO/OFT developed a notification sent to users explaining changes related to hibernation of PCs. The program was tested to determine how it could best be implemented and employed, and if it would affect running applications. Through testing CIO/OFT determined Wake On LAN (WOL) was the best solution because it allows users and our patching systems the ability to wake up the machines from hibernation to continue work or provide patching and support. Following the pilot, CIO/OFT evaluated all issues arising from the initial tests and resolved what lessons could be learned from those issues to assist us with

production rollout—this included the creation of an "exception group" to exclude some PCs from the program due to the nature of a user's work or the applications running on the PC.

Execution Phase

Once all of the information from the pilot was collected and fully reviewed CIO/OFT worked with each agency to come up with a plan to implement the Energy Star Policy and deployed it to their users' PCs. Following the execution of the program CIO/OFT worked to resolve any issues with PCs that were not hibernating and remove PCs from the exception group as needed.

13. Why is the program a new and creative approach or method?

This technology is one of the first of its kind in New York State and did not exist previously.

14. What were the program's start-up costs? (Provide details about specific purchases for this program, staffing needs and other financial expenditures, as well as existing materials, technology and staff already in place.)

Due to the nature of the project and how it was implemented, no new software or hardware was purchased for the project. The project team was able to use existing tools, such as Group Policy for applying the policy, and SCCM to assist with WOL. The only cost associated with the project was staff time. Below are estimates from the project in terms of people, hours, and cost associated with the hours.

15 people, 1400 hours, $71,000

15. What are the program's annual operational costs?

The program's cost was covered under normal operational support costs due to the nature of how the solution was implemented. There was no added charge for implementing this program.

16. How is the program funded?

The program is funded through existing staff salaries.

17. Did this program require the passage of legislation, executive order or regulations? If YES, please indicate the citation number.

No

18. What equipment, technology and software are used to operate and administer this program?

The team considered several well-known third party technologies such as BigFix and 1E. However, the most cost effective option was to use off-the-shelf systems management components that already existed in the environment, including Active Directory Group Policy and Microsoft System Center Configuration Manager (SCCM) to implement the technical portions of the project.

The more complex aspect of the project was coordination and testing of agency applications from six participating state agencies (plus internally for CIO/OFT) and numerous individual PC models that had difficulty adapting to power management.

Microsoft SharePoint Server was an invaluable resource for posting documentation, tracking issues and scheduling project milestones. It was used by the project team and representatives from the participating agencies.

19. To the best of your knowledge, did this program originate in your state? If YES, please indicate the innovator's name, present address, telephone number and e-mail address.

No

20. Are you aware of similar programs in other states? If YES, which ones and how does this program differ?

No

21. Has the program been fully implemented? If NO, what actions remain to be taken?

Yes

22. Briefly evaluate (pro and con) the program's effectiveness in addressing the defined problem[s] or issue[s]. Provide tangible examples.

At the time of the project's inception, New York State was projecting budget deficits and looking for ways to curb costs going forward. Today, New York State is faced with closing a deficit of more than $9 billion and the estimates provided by a New York State Energy Research and Development Authority (NYSERDA) study demonstrated a yearly cost savings of $1,356,250 by implementing power management on the 35,000± workstation and notebook computers managed by CIO/OFT. Actual savings on project implementation for 70% of the supported PC's has saved approximately $834,000 worth of electricity. These costs are reflected in utility bills paid by NY State, Local County Social Services Departments, and private landlords.

Because of the difficulty to "recapture" energy savings across so many organizational boundaries and to maximize total dollar savings, the project team was challenged to implement the project using existing tools and budgets. The goal was to improve service delivery without purchasing any additional software or services beyond what was already available.

23. How has the program grown and/or changed since its inception?

The addition of Windows 7 in the environment enabled a feature that allows workstations to "sleep" after 30 minutes (and still get the energy savings benefits), instead of "hibernating" the machines. This makes it easier to wake a PC and is helpful to users with slower machines.

24. What limitations or obstacles might other states expect to encounter if they attempt to adopt this program?

The largest obstacle in implementing this program was the lack of support from the user community. As with most work-related changes, user apprehension and objections concerning how it might affect their work habits or abilities was expected. This is one area other states looking to adopt this program should consider and plan for proper user education and outreach to lessen concerns.

Additionally, extensive testing was needed to best implement the program. Because of the varying applications across the environment, more testing was needed than originally planned.

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Program Categories and Subcategories

Use these as guidelines to determine the appropriate *Program Category* for your state's submission and list that program category on page one of this application. Choose only one.

Infrastructure and Economic Development
- Business/Commerce
- Economic Development
- Transportation

Government Operations and Technology
- Administration
- Elections
- Information Systems
- Public Information
- Revenue
- Telecommunications

Health & Human Services
- Aging
- Children & Families
- Health Services
- Housing
- Human Services

Human Resources/Education
- Education
- Labor
- Management
- Personnel
- Training and Development
- Workforce Development

Natural Resources
- Agriculture
- Energy
- Environment
- Environmental Protection
- Natural Resources
- Parks & Recreation
- Water Resources

Public Safety/Corrections
- Corrections
- Courts
- Criminal Justice
- Drugs
- Emergency Management
- Public Safety

Save in .doc or rtf. Return completed application electronically to innovations@csg.org or mail to:
CSG Innovations Awards 2011
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Lexington, KY 40578-1910

Contact:
Nancy J. Vickers, National Program Administrator
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The Council of State Governments
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This application is also available at www.csg.org.