Agency Climate Implementation Plan

Maryland Department of Information Technology

November 1, 2024

Maryland
DEPARTMENT OF INFORMATION TECHNOLOGY

Maryland
DEPARTMENT OF INFORMATION TECHNOLOGY

Agency Climate Implementation Plan

Department of Information Technology Climate Implementation Plan required by Executive Order, "Leadership by State Government: Implementing Maryland's Climate Pollution Reduction Plan"

In accordance with Governor Moore's Executive Order 01.01.2024.19, "Leadership by State Government: Implementing Maryland's Climate Pollution Reduction Plan," The Department of Information Technology affirms its commitment to:

- Work to address climate change and ensure a just transition to a clean economy;
- Advance environmental justice by working to address the disproportionate impacts of climate change for underserved and overburdened communities, including the application of Justice40 goals, initiatives, and funding;
- Equitably implement all existing laws, regulations, and policies related to climate change, incorporating robust community and stakeholder engagement; and
- Continue to maximize federal funding opportunities on climate.

The Department of Information Technology hereby submits its own Climate Implementation Plan (CIP) to demonstrate its commitment to a whole-of-government approach to addressing climate change and fully implementing Maryland's Climate Pollution Reduction Plan.

Part 1: Agency Actions Under the Climate Pollution Reduction Plan

Maryland's Climate Pollution Reduction Plan calls on the Department of Information Technology (DoIT) to:

Data Centers

DoIT will work with its partner agencies to evaluate the usage of Data Centers and how the State can reduce its energy usage and overall environmental impact. Data centers' rapidly increasing energy consumption and ecological impact highlight the need for sustainable growth. This encompasses energy efficiency, renewable energy use, waste elimination, and carbon emissions reduction. Data centers can implement various strategies to ensure sustainable growth.

Hardware

Study hardware optimizations to ensure enterprise agencies are investing in energy-efficient servers, networking devices, and computers. Also ensuring that during our lifecycle management process we are replacing older hardware with more efficient models.

Software

Assisting in the evaluation of software that can be utilized by other agencies in their goals for the climate reduction plan. Software engineers can also develop applications that use resources more efficiently, minimizing the energy required for their operation. This can be achieved through coding practices that prioritize performance optimization and power management features.

All Agencies

Apply for federal funding - Under the leadership and coordination of the Governor's Federal Office, all agencies will apply for federal funding to implement actions that support the achievement of this plan. State agencies will work closely with local governments, nonprofits, and community-based organizations to ensure Maryland is competitive for federal climate action implementation funds and to build capacity for local-level implementation. State agencies will offer support to Maryland's businesses and private sector to ensure they are competitive for historic federal investments.

Part 2: Recommending Actions to Address Climate Change

State law (MD Code, Environment, § 2-1305) requires that each State agency shall review its planning, regulatory, and fiscal programs to identify and recommend actions to more fully integrate the consideration of Maryland's greenhouse gas reduction goal and the impacts of climate change. The review shall include the consideration of (i) sea level rise; (ii) storm surges and flooding; (iii) increased precipitation and temperature; and (iv) extreme weather events. Furthermore, each State agency shall identify and recommend specific policy, planning, regulatory, and fiscal changes to existing programs that do not currently support the State's greenhouse gas reduction efforts or address climate change.

In compliance with the law, the Department of Information Technology is taking or recommending the following actions to more fully integrate the consideration of Maryland's greenhouse gas reduction goal and the impacts of climate change.

Prioritize vendors with sustainable product lines and responsible manufacturing practices. Implementing sustainable procurement practices can help organizations reduce their carbon footprint and promote environmental sustainability. By selecting environmentally friendly products and suppliers, organizations can reduce the environmental impact of their supply chain. Organizations can consider choosing suppliers with eco-friendly certifications, using products made from recycled materials, and selecting products that are energy-efficient and have a low carbon footprint.

Part 3: Considering Greenhouse Gas Emissions Reductions and Impacts on Disproportionately Affected Communities

State law (MD Code, Environment, § 2-1305) requires that each State agency, when conducting long-term planning, developing policy, and drafting regulations, shall take into consideration: (1) the likely climate impact of the agency's decisions relative to Maryland's greenhouse gas emissions reduction goals; and (2) the likely impact of the agency's decisions on disproportionately affected communities identified according to the methodology adopted under § 1-702 of the Environment article. Furthermore, Governor Moore's Executive

Order 01.01.2024.19 requires each agency to report on how the agency will advance environmental justice by working to address the disproportionate impacts of climate change for underserved and overburdened communities.

In compliance with the law and Executive Order 01.01.2024.19, the Department of Information Technology is taking the following steps to meet these requirements.

DoIT will support agencies in utilizing existing Environmental Justice and Climate Vulnerability tools, such as integration of these GIS based tools within their own systems to make it easier for agencies to integrate them into their decision making processes.

Part 4: Resources for Implementation

Implementing Maryland's Climate Pollution Reduction Plan

Implementation of DoITs priorities for the climate reduction plan can be incorporated into current practices and policies of the agency. Updating Data Center, Hardware, and software policies should not take much time or resources.

Implementing this Climate Implementation Plan

Current funding is going towards the updating of data centers; hardware and software can be directed toward ensuring that it is being used in an environmentally responsible way. This includes investing in data centers with high sustainability standards, including renewable energy sources and efficient cooling systems, and considering geographically located data centers to minimize data transmission distances.

Part 5: Outcomes from Implementation

Implementation of the changes in policies and procedures related to data centers, IT hardware and software can lead to many positive impacts on the State as a whole. This would include decreased energy consumption by data centers which would include financial savings from that reduced energy consumption. Energy-efficient hardware can significantly decrease power consumption, resulting in lower carbon emissions. It is important for organizations to prioritize the adoption of such hardware and encourage manufacturers to produce more energy-efficient devices.

Energy-efficient hardware not only benefits the environment by reducing carbon emissions but also offers cost savings for organizations in the long run. By investing in energy-efficient servers and devices, agencies can lower their electricity bills and improve their bottom line. Additionally, the use of energy-efficient hardware can enhance the overall performance and reliability of IT systems, leading to more sustainable and efficient operations.

Software engineers can develop applications that use resources more efficiently, minimizing the energy required for their operation. This can be achieved through coding practices that prioritize performance optimization and power management features. By focusing on software optimization, organizations can significantly decrease energy consumption and reduce their carbon footprint.

Software optimization not only contributes to reducing carbon emissions but also enhances the user experience and overall system efficiency. Well-optimized software can lead to faster application response times, improved system reliability, and better resource utilization. By investing in software development that prioritizes energy efficiency, organizations can not only lower their environmental impact but also improve the performance and sustainability of their IT infrastructure.