

Project Title	2010 Agency Priority Ranking	Agency Project Request for State Funds (\$ by Session)				Governor's Recommendations 2010	Governor's Planning Estimate	
		2010	2012	2014	Total		2012	2014
Data Center Consolidation	1	\$214,227	\$0	\$0	\$214,227	\$0	\$0	\$0
<b>Total Project Requests</b>		\$214,227	\$0	\$0	\$214,227	\$0	\$0	\$0

## Data Center Consolidation

**2010 STATE APPROPRIATION REQUEST:** \$214,227,000

**AGENCY PROJECT PRIORITY:** 1 of 1

**PROJECT LOCATION:**

**Project At A Glance**

- ◆ Provides highly secure, green data center for the state Executive Branch, higher education institutions, and select counties
- ◆ Consolidates the 36+ state Executive Branch agency data centers into an enterprise operation for greater efficiency and reduced risk of failure
- ◆ Establishes new, extraordinary state–local government partnership to reduce construction and ongoing operating costs

**Project Description**

This request for \$214,227,000 in state funds is to acquire land, design, construct, furnish and equip a new building for use by state Executive Branch agencies, with additional capacity for higher education institutions and some counties. The development of arrangements with the local government partners is in progress. The state – through the Office of Enterprise Technology (OET) and Department of Administration (Admin) – will develop a new state-owned Tier III data center facility with 90,000 square feet on 12 acres of land; this will allow for expansion as needs require over 15 years. The new facility will allow for the consolidation of most state Executive Branch agency data centers into an enterprise operation consisting of a single primary facility with one or more separate disaster recovery sites. One or more current agency data centers will be renovated and upgraded for the purpose of serving as disaster recovery sites; the funding to cover these costs is included in this request.

**Total Project Cost:** The total cost of this project is \$214,227,000. The funding includes state-issued general obligation bonds. The arrangements with local government partners, including funding contributions, have yet to be determined.

By partnering with higher education institutions and counties, costs are projected to be reduced for total facility construction by approximately \$30 million and ongoing operations by approximately \$12 million over 15 years. The local government partners are seeking a new data center location and will continue to do so even if the state does not partner with them.

Data center facilities house equipment for data processing, communication, and storage. They are essential for government operations and citizen services such as 911 emergency response, tax collections, and criminal records. Minnesota's state Executive Branch agencies currently maintain at least 36 data center facilities, using 69,251 square feet of space and 3,275 servers. As more state agencies move their essential services online, the need for secure, reliable 24x7x365 operations to maintain and protect the information and services citizens receive is absolutely critical. By consolidating data centers, the state would better manage investments, service quality, security, and energy consumption (green IT).

A recent detailed third-party assessment of state Executive Branch data centers determined that their current state poses a serious and growing risk to government and citizen data, services, and programs, and is highly inefficient and wasteful. The assessment found that limited financial resources over the years, coupled with decentralized management of the data centers, has resulted in facilities and locations that are makeshift, antiquated, and deteriorating. They are built to 40 year-old guidelines and most facilities are retrofitted office space lacking key mechanical and electrical capabilities. The state's data centers are at Tier I – the lowest ranking possible on the well-regarded scale from the Uptime Institute. The state needs to be at Tier III to adequately protect itself and serve the public.

The state's current decentralized environment uses an excessive number of locations based upon the number of servers, applications, and requirements. It is extremely complex and difficult to maintain, creating large-scale inefficiencies and risks of failure:

- ◆ The current square footage used for data centers is three times larger than necessary.
- ◆ There are 85 different operating system versions in use and there should be significantly fewer. Many of these operating systems are no longer supported by the vendor, which means they cannot be fixed if they break down and cannot integrate with new software.

## Data Center Consolidation

- ◆ There are 267 different server models and there should only be 30-50 main types. A server inventory this diverse increases costs.
- ◆ Approximately 25% of the servers are over five years old and an additional 25% will reach five years by the end of 2009.

Under current conditions, it is estimated that within the next three years the state will experience three to five data center failures. There were multiple failures in the last year, impacting tens of thousands of Minnesotans and costing the state hundreds of thousands of dollars.

Multiple problems contribute to the vulnerabilities of the state's data centers. The data centers lack cameras and video recording. Critical agency infrastructure is effectively run out of "home and garage" type power and cooling. In one case, there are 64 servers plugged into a single wall outlet without a backup power supply. Lastly, about 80% of the locations have no or inadequate disaster recovery capability.

**Impact on Agency Operating Budgets (Facilities Notes)**

The new data center will be a state-owned facility. Details related to the governance of the partnership, lease payments and/or charge-back-rates are in development and will be refined in the predesign process.

OET currently pays lease costs on its data center space and OET will continue to do so at the new data center. These lease costs will likely be higher at the new center, impacting OET's operating budget, as well as those agencies that pay OET for hosting services. Note that the higher lease costs are due to the improved security, redundancy, and cooling and electrical capacity of the new data center space; the increased costs are slightly offset by the virtualization of servers, which will result in space savings.

**Previous Appropriations for this Project**

The 2009 legislature appropriated \$250,000 to the Department of Administration to continue planning for a data center consolidation, including beginning a predesign study and lifecycle cost analysis, and exploring technologies to reduce energy consumption and operating costs. This amount is intended to cover some but not all predesign costs of a data center primarily serving the state Executive Branch. \$250,000 amounts to about

one-third of the funds needed for predesign of a data center that includes both the state and local partners.

**Other Considerations**

In addition to the security and efficiency benefits, this initiative will allow for conversion of a significant amount of agencies' building space into more appropriate office uses for which it was designed.

Also, given the large size of this project, it will provide a number of construction and technical jobs.

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**Governor's Recommendations (To be completed by MMB at a later date)**