



Chicago Metropolitan Agency for Planning

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MEMORANDUM

To: CMAP Board

From: Angela Manning-Hardimon
Deputy Executive Director, Finance and Administration

Date: October 13, 2021

Re: Approval for the Purchase of 5 Servers for RAP Modeling from Dell

CMAP is seeking to purchase five (5) new Dell modeling servers to support transportation and land use modeling. The current set of servers have effectively reached their end of life: the three newest servers were purchased in May 2015 with the two oldest servers were purchased in March 2012.

To expedite the purchase of the servers, CMAP can use the competitively bid State of Illinois Master Contract C000000565106 through Dell as a pre-approved vendor. The use of the State of Illinois Master Contract C000000565106 expedites CMAP's procurement process and provides a process and pricing that is competitive.

CMAP has continued enhancing its modeling tools over the past few years. With two current projects underway to update the trip-based and activity-based travel demand models, the agency is working to enhance its analysis capabilities. To get the most benefit out of these advanced tools, an investment in new servers is required to handle the computational demands of these models. A few of the models that are used are listed below:

- The trip-based travel demand model is used to assess long range plan scenarios, perform Air Quality Conformity analyses, conduct small area traffic forecasts, and to evaluate the impacts of major transportation investments.
- The activity-based model (ABM) is an advanced travel demand model that operates at a much finer level of geography than the trip-based model and provides much more detailed information about individual travelers.

- The Meso-Scale Freight Forecasting Model with Agent-Based Supply Chain Evolution simulates the procurement markets for commodities based on the amount of the product that a buying firm needs and the best prices available.
- The Regional Tour-Based Truck Model simulates the truck delivery patterns in the CMAP region.

It is recommended that the Board approve the purchase of these servers for an amount not to exceed \$150,000. Support for this procurement will be provided by FY2021 UWP Operating Budget.

ACTION REQUESTED: Approval