

MEMORANDUM

DATE: June 16, 2022
TO: Administration and Finance Committee
FROM: Tegin Teich, Executive Director, Central Transportation Planning Staff
RE: Proposed Five-Year Plan (SFY 2023–27) for Computer Resources Development

1 BACKGROUND

The Central Transportation Planning Staff (CTPS) prepares a Five-Year Computer Plan annually, with the goal of updating the plan each state fiscal year (SFY) to better represent the information technology (IT) infrastructure investment needs of the agency. The plan typically includes hardware and software that are considered major reinvestments or cost more than \$5,000 per single item.

2 SUMMARY OF PROGRESS

In the past five years, CTPS has made significant progress in updating and replacing its computing infrastructure. The following provides details of this progress.

- Replaced application/database server that hosts the applications that CTPS provides to staff along with the databases that CTPS uses.
- Replaced fileserver that is used to host files that staff access daily.
- Replaced several dedicated transportation modeling workstations.
- Replaced the backup tape library that is used for long-term backup of the servers and workstations to tape.
- Replaced firewall server that is used to host the firewall software that assists with shielding CTPS from malicious or unwanted traffic.
- Replaced backup server that is used to host the software used to backup all servers and workstations.
- Replaced multiple virtual host servers that are used to host virtual workstations.

- Upgraded network switches in the server room and upgraded NIC cards on the servers and transportation modeling workstations to 10 gigabyte connectivity.
- Replaced the primary domain server that hosts all staff accounts and computer and network share settings, in addition to a printer server that provides staff access to all the printers.
- Purchased additional servers to host virtual machines and remote access software.

3 PROPOSED DIRECT PURCHASES FOR SFY 2023 (COST \$60,000)

The data processing/technology investment in the SFY 2023 budget includes the replacement of the agency's disk-based backup appliance. Disk-based backup is a data backup and recovery method that backs data up to hard disk storage. The current appliance will reach the end of its service life on December 31, 2022, and will not be eligible for future technical support after that date. Increased need for storage space to back up agency servers and workstations will also be addressed with the purchase of this new backup appliance.

4 FUTURE DEVELOPMENTS

In SFY 2024, CTPS plans to replace the firewall server that is used to host the firewall software, the file server that is used to host files used by staff, a virtual host server that hosts multiple virtual machines, and two transportation modeling workstations. CTPS also plans to purchase additional storage for the disk backup appliance. It is important to replace IT equipment as it reaches its life span of approximately five years. .

In the outer years of this plan, it will be necessary to replace a server that hosts the agency's databases and applications, a server that hosts virtual machines, plotters for printing maps and large documents, and several dedicated transportation modeling workstations.

In the indirect hardware line item, CTPS plans to equip its conference rooms and meeting rooms with audio-visual equipment to support hybrid meetings. The annual lease of approximately \$28,000 for laptops used by staff is also included in this line item.

CTPS plans to procure services for a fully managed (24x7x365) endpoint detection and response (EDR) solution, a multi-factor authentication (MFA) for domain level account access, and software that backs up the cloud platforms. CTPS also plans to increase managed support of the firewall to 24x7x365 and procure managed support for the switches.

5 COST ESTIMATES

Cost estimates for SFY 2023–27 proposed purchases are shown in the attached Table 1 – *Direct Charges for Computer Purchases by Fiscal Year*. The direct expenses are funded by the annual 3C contract.

Attachment: Table 1 – *Direct Charges for Computer Purchases by Fiscal Year*

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Title VI Specialist
Boston Region MPO
10 Park Plaza, Suite 2150
Boston, MA 02116
civilrights@ctps.org

By Telephone:

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