



AGENDA REPORT

TO: Jestin D. Johnson
City Administrator

FROM: Tony Batalla
Director, Information
Technology Department

SUBJECT: Oakland Data Center Infrastructure
Upgrade

DATE: October 16, 2023

City Administrator Approval 

Date: Nov 1, 2023

RECOMMENDATION

Staff Recommends That The City Council Adopt a Resolution Authorizing The City Administrator To Enter Into A Professional Services Agreement With Neuvys Technologies, An Oakland-Based, Local Business Enterprise Technology Provider To Upgrade And Consolidate The City's Data Center And Backup Infrastructure, For A Term Beginning December 5, 2023 And Ending December 31, 2025, In An Not-To Exceed Contract Amount Of \$2,505,745 Plus A Ten Percent Contingency Of \$227,795; And Waiving The Competitive Multiple-Step Solicitation Process.

EXECUTIVE SUMMARY

Staff Recommends That the City Council Adopt a Resolution authorizing the City Administrator to enter into a professional service agreement with Neuvys Technologies to upgrade & consolidate the city's data center and backup infrastructure, and waive the competitive multiple-step solicitation process for the acquisition of any computerized or information technology systems.

BACKGROUND / LEGISLATIVE HISTORY

Data center infrastructure comprises of enterprise information technology resources such as servers, storage, and backup systems that process and store the City's applications and data. The City of Oakland currently manages three data centers, including two at City owned sites and one at a commercial data center environment in Oakland. These sites utilize aging, unsupported hardware infrastructure, much of which is significantly beyond its useful lifecycle.

The Information Technology Department (ITD) recommends consolidating these environments at one site: the commercial data center environment. The commercial data center environment is built to withstand environmental impacts such as earthquakes and fires and provides multiple, redundant power sources. Upgrading the City's data center and backup infrastructure will modernize the entire environment and is a critical project for enhancing the reliability, resiliency, and security of the City's information technology systems. This approach will provide for future growth and provide additional security and efficiencies through consolidation and improvements in the architecture and design of the City's information technology infrastructure.

Finance & Management Committee
November 14, 2023

ANALYSIS AND POLICY ALTERNATIVES

The overall objective of this project is to consolidate the City's current disparate data centers and modernize the technology infrastructure within the City. Consolidating and upgrading the City's data center infrastructure and storage will deliver critical security improvements to protect the City's network from unauthorized access and data breaches. In line with the Information Technology Department's strategic plan identifying and prioritizing critical projects that are required to update, modernize, and "harden" the City's IT infrastructure and systems, this project will deliver numerous enhancements, including:

- Fully consolidated, modernized IT server and storage infrastructure from Hewlett Packard Enterprise (HPE) with a 5-year warranty;
- Fully upgraded Commvault backup systems, including HyperScale X on HPE infrastructure and Metallic cloud remote storage;
- A new demilitarized zone (DMZ) architecture and system from F5 for securely hosting Internet facing applications, services, and APIs from the data center;
- VMware virtualization and networking software;
- Cisco network switches for connectivity;
- Professional services from Neuvys to migrate and consolidate hundreds of City servers and systems in the new data center environment, including upgrading operating systems to secure and supported versions, and
- HPE Server replacements for aging and outdated telecom infrastructure used as part of the City's Mitel voice network.

The project cost breakdown is as follows:

HPE Synergy Compute Solution	\$ 361,151.54
HPE Alletra 5030 Storage Solution	\$ 254,934.70
HPE Compute Solution for Telecom Upgrades	\$ 166,087.05
HPE Compute for Commvault HyperScale X Solution	\$ 535,069.50
Commvault Metallic Solutions	\$ 239,129.95
Commvault Consulting & Project Management Services	\$ 48,690.00
Commvault Educational Services	\$ 50,080.00
Additional VMware Licensing	\$ 136,470.00
Cisco Catalyst 9500 Solution	\$ 132,374.63
F5 Networks Distributed Cloud Base Pack w Cust Edge	\$ 136,122.00
F5 Networks Distributed Cloud Professional Service Total	\$ 27,840.00
Neuvys Professional Services	\$ 190,000.00
10% Project Contingency	\$ 227,794.94
Total	\$ 2,505,744.31

The consolidated data center environment can be considered a "private cloud" meaning a "cloud" environment owned, operated, and maintained by the City of Oakland. With the passage of the FY 2023-2025 budget, the City Council approved funding for projects that accomplish the above goals. ITD has prioritized projects in order of need. Consolidating, modernizing, and securing data storage is one of ITD's immediate priorities.

If the City does not make these upgrades, the existing data center infrastructure will eventually fail as it is running on end-of-life hardware, which means that the infrastructure is no longer able to be updated or supported by vendors. In addition, the infrastructure will eventually become insecure and less protected, as security patches are no longer available. The recommended infrastructure, primarily Hewlett Packard Enterprise (HPE) servers and storage, has been designed with current and future requirements in mind. ITD will coordinate throughout this project with all stakeholders and application owners throughout the City.

Although the data migration component of this project is one-time, the services and maintenance will be ongoing. Implementation is expected to begin in February of 2024. For business continuity and system security reasons, it is critical that the City upgrade and modernize its data infrastructure and storage solution, allowing ITD to actively monitor and deliver a seamless computing experience for City staff and resident's accessing City services through Oakland applications and platforms. The City must coordinate effectively on these systems to advance the Citywide priorities of vibrant, sustainable infrastructure and responsive, trustworthy government. When not maintained or renewed properly, the antiquated storage and aging technology can lead to downtime, including systems outages, lapses in service and a disconnect period for staff and residents who rely on these systems. By ensuring business continuity, this policy seeks to ensure secure, timely and consistent access to the City's data is available to staff and residents who require their use.

Waiver Of Competitive Solicitation Requirement Justification

In consideration of both the size and scope of this data consolidation and migration project for the City, ITD has determined that qualified value added resellers (VARs) are required that can provide consolidated quotes and services from multiple technology manufacturers. Staff identified only one Oakland-based VAR, Neuvys Technologies, that is a qualified reseller of HPE, Commvault, F5, and VMware products and services.

In addition, Staff are seeking an experienced professional services team to assist with the design, implementation, configuration, and migration of existing systems to the new consolidated data center infrastructure. Therefore, Staff recommends that the Council waive the Competitive Solicitation requirement for this project and for the renewal of annual maintenance and subscriptions described in the scopes or work.

Staff, however, are not requesting waiver of the Local/Small Local Business Enterprise (L/SLBE) Program requirement as Staff has determined that Neuvys Technologies is the only participating vendor in the information technology industry, trade, or profession in the City's L/SLBE Program. This Oakland-based, technology provider team is exceptionally well-qualified to undertake and help ITD coordinate this project.

Given the criticality of this project, Oakland's existing systems, and the scope of the professional work required, waiver of the competitive bidding requirement is reasonable and economical under the circumstances. The ability to consolidate and refresh the City's entire data infrastructure will provide significant cost savings and other efficiencies to the City and requires the use of vendors who are familiar with the existing information technology architecture. Staff therefore recommends that the Council waive the Competitive Solicitation requirement for this project and for the renewal of ongoing Information Technology services.

FISCAL IMPACT

This proposed Resolution will be funded via ITD's current FY 2024 and FY 2025 budget. These funds have been identified specifically for infrastructure, cybersecurity and network upgrades and are located here: General Purpose Fund (1010), Network Security and Maintenance Organization (46471), and Cyber Incident 2023 Project (1006997).

The cost of this project has been quoted at \$2,277,950. To that total, ITD is adding a ten percent contingency of \$227,795 for a grand not to exceed project total of \$2,505,745.

PUBLIC OUTREACH/INTEREST

No outreach was deemed necessary for the proposed policy action beyond the standard City Council Agenda noticing procedures because the proposed action exclusively addresses internal information technology systems. While upgrading, consolidating, and securing the City's data center and backup infrastructure will result in reliable access to data for all who use the City's technology systems, the planned upgrades and consolidation efforts will not impact any functionality for users.

COORDINATION

This report and legislation have been reviewed by the Office of the City Attorney, the Controller's Bureau, and the City Administrator's Office.

SUSTAINABLE OPPORTUNITIES

Economic: Effective City outcomes depend on secure, reliable, and cost-effective technology and platforms. Ensuring the stability and continuity of City data storage and associated infrastructure is particularly important when staff rely on that data to conduct the work of the City. Maintaining existing systems and upgrading appropriately is the most efficient solution for the City.

Environmental: Enterprise IT solutions focus on digital transactions that reduce the need for traditional printing and copying. Safe and effective data storage and cybersecurity solutions secure City data and give staff confidence in using these electronic repositories.

Race & Equity: The IT Department must ensure that City Staff have the systems and services necessary provide critical services to the community to support racial equity goals to address disparities. Failing to maintain robust secure data storage and related infrastructure and services can negatively impact City Staff's ability to provide these services to the community.

ACTION REQUESTED OF THE CITY COUNCIL

Staff Recommends That The City Council Adopt a Resolution Authorizing The City Administrator To Enter Into A Professional Services Agreement With Neuvys Technologies, An Oakland-Based, Local Business Enterprise Technology Provider To Upgrade And Consolidate The City's Data Center And Backup Infrastructure, For A Term Beginning December 5, 2023 And Ending December 31, 2025, In An Not-To-Exceed Contract Amount Of \$2,505,745 Plus A Ten Percent Contingency Of \$227,795; And Waiving The Competitive Multiple-Step Solicitation Process.

For questions regarding this report, please contact Tony Batalla, Information Technology Director, at 510-238-3319.

Respectfully submitted,



TONY BATALLA
Director, Information Technology Department