

UTILITY BILLING SYSTEM DATABASE DISASTER RECOVERY IMPROVEMENTS

Innovation and Technology Department

Board of Public Utilities July 11, 2022

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BACKGROUND

- 1. The City's datacenters are responsible for the storage, processing, and the distribution of large amounts of Citywide data for items such as:
 - a) Databases
 - b) Enterprise Applications
 - c) Billing Systems
 - d) Financial Systems

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BACKGROUND

- 2. RPU and IT staff developed a Technology Continuity of Operations Plan.
- 3. The team found that in certain disaster scenarios, the Utilities' billing system has a recovery time that does not meet RPU's operational expectations and needs.
- 4. The time required to restore the current environment from a complete data center failure would impose significant business impacts to RPU.



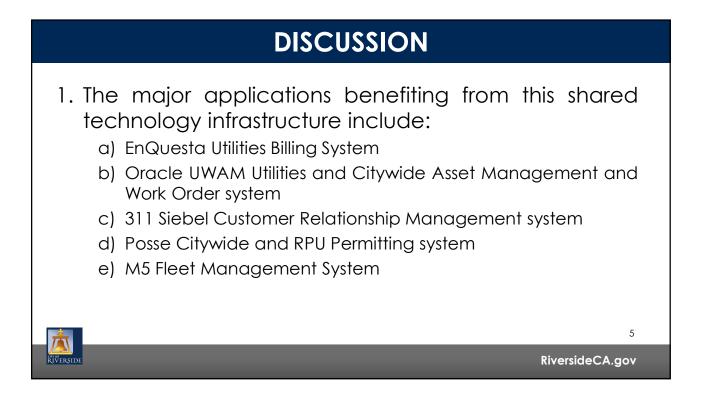
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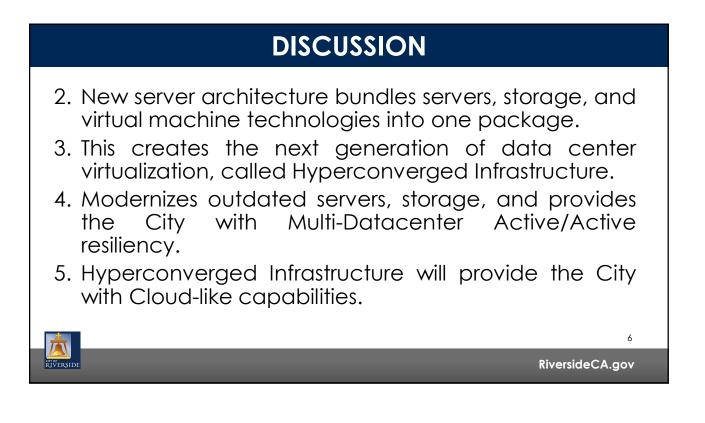
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BACKGROUND

- 5. Some servers in the City and RPU database environment are no longer supported by the manufacturer.
- 6. Expanding capacity and resolving these deficiencies will improve the City's continuity of operations and provide automated fail over of core critical services.
- 7. The Budget Engagement Commission and City Council allocated funding via Measure Z to address this critical infrastructure gap.







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DISCUSSION

- 6. These Cloud-like capabilities will allow for the consolidation of isolated databases while enhancing security, governance, reduce server quantities, and software licensing costs while accelerating service delivery.
- 7. This upgrade is imperative to the City's continuity of operations, providing redundancy, efficiency, cybersecurity, and increased processing speed for users.



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DATA CENTER MODERNIZATION

This upgrade aligns with the City's data center modernization efforts which will provide the following benefits:

- a) Replace central storage with faster and distributed solid state storage
- b) Enable full utilization of the City's failover data center to mitigate the impact of a City Hall Datacenter outage
- c) Replace and consolidate older servers
- d) Lower total cost of ownership
- e) Enable better organizational agility

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DATA CENTER MODERNIZATION (CONT.)

- f) Enable faster resource provisioning
- g) Improve cybersecurity by accommodating isolated virtual tenants, consolidate isolated department's datacenters, improve efficiency, reduce duplicate hardware, software licenses and streamline infrastructure management across all departments.
- h) Provide a scalable datacenter infrastructure, software, and security to support future City and Public Utilities smart cities technology initiatives.



RECOMMENDATIONS

That the Board of Public Utilities:

- 1. Approve an expenditure in the amount of \$196,249.59 for the Riverside Public Utilities share of the capital purchase, for the utility's billing system database disaster recovery improvements; and
- 2. Recommend that the City Council approve the purchase of the equipment and software detailed herein, with a Riverside Public Utilities cost of \$196,249.59 and a total project cost of \$392,499.18.



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