WASHOE COUNTY

Integrity   Communication   Service
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STAFF REPORT
MEETING DATE: May 6, 2022

DATE: Friday, April 29, 2022

TO: 800 MHz Users Group

FROM: Melissa Lawney, Regional Communications Coordinator, Washoe County Technology Services, mlawney@washoecounty.gov

THROUGH: Quinn Korbulic, IT Manager Regional Services, Washoe County

SUBJECT: A review, discussion, and possible action to approve the purchase of Routers and Switches for Washoe County Regional Communication System (WCRCS) and Vida Console Networks in Fiscal Year 2022-2023 for a cost not to exceed [$20,000].

SUMMARY

Recommendation that the Joint Operating Committee approve the purchase of new routers and switches for the Washoe County Regional Communication System not to exceed [$20,000].

WCRCS Network routers are ten-plus years old and need to be updated to prepare for the new P25 system. The routers and switches support our operational network for the WCRCS, which includes cameras, environmental system alarms, and the management and maintenance network used by the WCRCS team. To upgrade the Dispatch consoles, the old routers and switches also need to be replaced. These routers will support the P25 system but were not included in the original P25 system design or contract, as we have been adding more dispatch console over time. As the system grows, we need to expand the network and make the appropriate upgrades for redundancy and resiliency of system as a whole. This request is step one in replacing WCRCS routers and switches. Additional requests will be made in subsequent fiscal years with the total cost for replacement of all WCRCS routers and switches expected to be nearly $200,000.

PREVIOUS ACTION

N/A

BACKGROUND

The WCRCS network serves as a management and maintenance network designed to allow system engineers the ability to see alarms remotely preventing the need to physically visit site locations with every alarm. The network supports situational awareness of events happening inside and outside the communication site, via cameras strategically located around the properties and within the buildings. The network also serves as a place to store and access guides, documentation, and test software prior to installing upon the live network. The network also serves a development lab for testing scenarios and fixing equipment remotely. The second phase of the network request is to

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augment the ever-growing console network. As new consoles come on the network, each agency is responsible for the infrastructure purchased necessary to join the network, however the system redundancy is not being factored in as existing agency add more consoles. Nor are the replacements of Switches and router necessary to accommodate the Vida system.

Keeping routers, and switches running efficiently is a necessary component in ensuring a safe, reliable network connection for all public safety with connectivity needs. Routers tend to last 4-5 years, but the technology may become outdated or unable to match the needs of growth before the device itself fails due to age. Network operating systems (OS) require a little more attention and more frequent updates than network hardware, due to their role in security and system efficiency. Minor improvements and adjustments are constantly made to networking software and require almost continual updates to maintain optimal operation. The longer a network goes without upgrades and attention, the longer the list of accumulated exploits to which it may be vulnerable. The following is a list of current issues that warrant the need to upgrade and add our existing equipment:

- o Slow network speeds
- o Bandwidth overload
- o Loss of connection
- o Server access errors
- o out-of-date software

These network items become more critical as our radio system changes from a highly Time Division Multiplexing (TDM) system to a highly IP system.

FISCAL IMPACT

The Fiscal Year 2022-2023 Budget has sufficient budget authority in Washoe County Regional Communication System (210) in RCS Operations (210010), Equipment Capital (781004) in an amount of [$20,000].

RECOMMENDATION

Approve the purchase of Routers and Switches for Washoe County Regional Communication System (WCRCS) and Vida Console Networks in Fiscal Year 2022-2023 for a cost not to exceed [$20,000].

POSSIBLE MOTION

If the Committee agrees with staff's recommendation, a possible motion would be: "Approve the purchase of Routers and Switches for Washoe County Regional Communication System (WCRCS) and Vida Console Networks in Fiscal Year 2022-2023 for a cost not to exceed [$20,000]."