# WASHOE COUNTY

*Integrity    Communication    Service*
**www.washoecounty.us**

## STAFF REPORT
**MEETING DATE:** January 21, 2022

**DATE:** Wednesday, March 16, 2022

**TO:** 800 MHz Users Group

**FROM:** Quinn Korbulic, Regional Services IT Manager, Washoe County Technology Services, 775-328-2348, qkorbulic@washoecounty.gov

**THROUGH:** Behzad Zamanian, Chief Information Officer, Washoe County

**SUBJECT:** A review, discussion, and possible action to approve the expenditure of Core Routers and Switches for Washoe County Regional Communication System (WCRCS) and Vida Console Networks Fiscal Year 2023-2024.

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## SUMMARY

Recommendation to approve and recommend to the Joint Operating Committee approve the expenditures of a new routers and switches for the Washoe County Regional Communication System not to exceed [$150,000].

WCRCS Network routers are 10+ years old, and need to be updated to prepare for the new system. These support our operational network for the WCRCS, which includes the cameras, environmental system alarms, and management and maintenance network used by the WCRCS team. [$110K] In order to upgrade the Dispatch consoles, the old routers and switches need to be replaced. These routers support the system side but were not included in the original P25 system, as we have been adding more dispatch console over time. As we grow, we need to expand the network and make the appropriate upgrade for redundancy, and resiliency of system as a whole, this cost is expected to be [$40K].

**Washoe County Strategic Objective supported by this item**: Meet the needs of our growing community, as well as promote experimentation and innovation.

## PREVIOUS ACTION

## N/A

## BACKGROUND

The WCRCS network serves as a management and maintenance network designed to allow Technicians the ability to see alarms remotely, as not to have to conduct a truck roll for every trouble call. This network supports situational awareness of events happening inside and outside the communication site, via camera strategically located around the properties and within the buildings. This network serves as a place to download help guides, and test software prior to installing upon the live network. This serves a dev Lab

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for testing scenarios and fixing equipment remotely.  The Second Network ask is to 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 Infrastructure (210300), Equipment Capital (781004) in an amount of [$110,000].

**RECOMMENDATION**

Approve and recommend to the Joint Operating Committee approve the expenditure for Washoe County Regional Communication System team to purchase new switches and routers not to exceed the cost of [$110,000].