

Fiscal Year 2021-22 Information Technology Request

Human Services County Infrastructure Upgrade

SHORT PROJECT DESCRIPTION

The Colorado Department of Human Services (CDHS) is requesting \$950,690 in state funding for FY 2021-22 for the replacement of 10-year-old routers and switches for county human service departments.

PRIOR APPROPRIATION AND REQUEST INFORMATION

<u>Fund Source</u>	<u>Prior Approp.</u>	<u>FY 2021-22</u>	<u>FY 2022-23</u>	<u>Future Requests</u>	<u>Total Cost</u>
CCF	\$0	\$950,690	\$0	\$0	\$950,690
Total	\$0	\$950,690	\$0	\$0	\$950,690

PROJECT STATUS

This is a new, never-before-requested project.

PROJECT DESCRIPTION

CDHS is requesting \$950,690 in state funding for FY 2021-22 for the replacement of 10-year-old routers and switches for county human service departments. In Colorado's state-supervised, county administered health and human services system, CDHS is responsible for supporting and managing all counties' IT infrastructure at varying levels of support, depending on a county's size and internal IT staff resources. There are 40 "Option 2" counties, which are small- to medium-sized counties that receive support from the state for some day-to-day IT operations as well as call center and help desk support. There are 22 "Option 3" counties, which are larger counties that often have their own fully staffed IT department. (Rio Grande and Mineral Counties are combined counties for the administration of Human Services. Rio Grande hosts both counties, while Mineral County does not have a physical office location and service. Similarly, Gunnison and Hinsdale Counties are combined counties for administering Human Services. Gunnison hosts both counties, while Hinsdale County does not have a physical office location and service.)

This request will fund the replacement of 100 switches and 80 routers for all counties and three additional CDHS and vendor sites, and also make eight switches and seven routers available for future replacement needs.

PROJECT JUSTIFICATION

According to the department, increased usage of video conferencing, video training, and other remote work needs due to the COVID-19 pandemic has highlighted bandwidth issues caused by out-of-date county IT equipment. The department is requesting funds for the replacement of old routers and switches in order to achieve four primary goals. First, the replacement will serve to ensure that counties can efficiently serve their clients. Second, the replacement will address data security concerns. Third, the replacement will increase speed and response for county staff accessing portal based applications. Lastly, the replacement will lessen or mitigate the risk that the current system configuration poses. All four of these goals will go toward ensuring the operating security, performance, and accessibility of the department's programs to Coloradans, which provide access to food assistance, child care assistance, child welfare, adult financial programs, and many more key programs utilized by Coloradans.

Additionally, critical findings from a December 2021 Internal Revenue Service (IRS) audit of the department's Automated Child Support Enforcement System (ACSES) relate to counties' outdated routers. These routers are no longer being supported by vendors and are therefore unable to receive security patches or product updates. These critical audit findings are required to be remediated within 90 days of the official report or the department risks corrective action fines being issued by the IRS of anywhere from \$10,000 to \$1.0 million. The IRS could also disallow the use of the agency's data, which would result in the department losing the ability to intercept tax refunds. Overall this could result in a loss of over \$32 million for families and the counties administering child support services.

This project will also help prevent interruptions in the provision of critical services due to security breaches or inadequate bandwidth. For example, in FY 2019-20, three counties (Alamosa County, Lake County, and Logan County) suffered a loss of service due to various events, including actions taken by a disgruntled employee and inadequate network devices, resulting in

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an interruption of services for Coloradans. The department has determined that in order to prevent further such events, the planned upgrades are critical.

COST-BENEFIT ANALYSIS

According to the department, an accurate estimate regarding the magnitude of savings from this project is not possible due to the broad and numerous ramifications this project would have. However, these upgrades will prevent potential IRS fines and system outages.

PROJECT COST INFORMATION

The department plans to leverage the statewide pricing agreement through the Lumen Managed Services Contract for the purchase of the routers and switches for this project.

The total cost for the purchase and installation of the routers and switches is \$750,690:

- 97 24p switches at a cost of approximately \$5,550 each to purchase and install
- 11 48p switches at a cost of approximately \$7,850 each to purchase and install
- 52 PA-200 routers at a cost of approximately \$1,014 each to purchase and install
- 35 PA-220 routers at a cost of approximately \$2,094 each to purchase and install

The department is also requesting \$200,000 for two term-limited staff to perform the duties required to complete the system refresh. This will include traveling to each county with new equipment, installing the new equipment at each site, disposing of old equipment, and developing the monitoring structure to ensure uptime for each of the county's routing infrastructure.

The department plans to explore options for ongoing operating funds to ensure an adequate refresh cycle of county IT hardware.

CASH FUNDS

N/A

PROJECT RESEARCH

In developing this request, the department worked with the Lumen Managed Service partner, Istonish, to conduct an assessment of each county's needs based on the size of each county and their corresponding bandwidth/capacity to determine the exact number of equipment upgrades each county requires.

ADDITIONAL PROJECT INFORMATION

This year, the department exhausted all current options to move used equipment between counties, the Governor's Office of Information Technology (OIT), or other state agencies, and is no longer able to meet the need for secure, timely access to the internet for Option 2 counties using this refurbished equipment. The department has determined that while refurbished equipment could help address some of the internet slowness issues, the refurbished equipment does not offer the level of security required by the current cybersecurity rules within the State of Colorado, nor would it meet the standards required by the IRS. According to the department, there is also currently a lack of refurbished equipment available in the wider marketplace.

PROJECT SCHEDULE

	Start Date	Completion Date
Planning	December 2021	February 2022
Implementation	April 2022	October 2022
Testing	July 2022	December 2022
Closing	December 2022	December 2022

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QUESTIONS

1. Please explain why the state would be providing routers to Option 3 counties as part of this request, when the focus for state support appears to be Option 2 counties.

County Colorado State Network (CSN) access manages all Option 2 and Option 3 routers to ensure consistent support through the Lumen Managed Service partner, Istonish. Since the Option 2 (small and medium) counties are fully supported by the Lumen Managed Partner Istonish for infrastructure support; this request has a larger impact on addressing their needs and therefore was the larger focus of the request. The Option 3 (large) counties have internal or on-site support, so OIT support for these counties is only infrastructure to the front door, and is specific only to state supported applications such as secure printing for several applications.

2. The request states that “replacing the router and switches now will save the state time in administering human services with faster internet speeds and immediately save money.” Has the department calculated or estimated the magnitude of these time and monetary savings?

The security vulnerability with this old router/switch solution possesses a large monetary risk due to the IRS finding and potential for any of the counties to be compromised who access sensitive personal information on a daily basis to complete their work. The security risk stems from the outdated equipment not being able to be updated or patched as it is too old to be vendor supported.

The Department has not calculated nor do we believe we could accurately estimate the magnitude of savings this solution would yield by solving internet slowness for county workers, as the county downtime on internet slowness is difficult to quantify and would be labor-intensive on the part of the counties to estimate. However, Alamosa County was able to provide some data. Alamosa County reported that their previous router was only allowing 20 mbps which would not allow their sixty employees to conduct normal business. If more than three employees needed to complete online training, all other employees would not be able to use the internet for work. These slow speeds also inhibit counties from realizing some of the enhancements to their core applications like CBMS' intelligent character recognition capability.