

**Livingston County  
Information Technology  
Department**

# Report

**To:** Livingston County Board of Commissioners, Livingston County Administrator Nathan Burd, Livingston County Chief Financial Officer Cindy Catanach

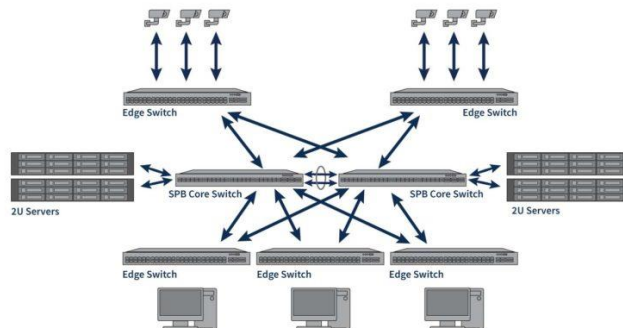
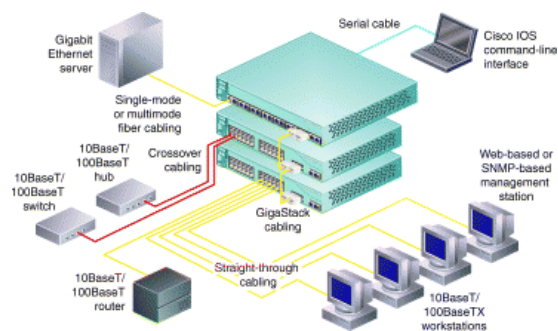
**From:** Kristoffer Tobbe  
Livingston County Chief Information Officer

**Date:** October 27, 2020

**Re:** Livingston County Information Technology Department: Network Switch upgrades

## Request for approval of the Livingston County Remote Network Switch replacement.

Network switches are the traffic cops of a modern technology network. These switches are positioned in locations that have a number of network technology users in the vicinity. These locations are normally in buildings and can provide secure network access for between 24 and 48 network nodes (Computers, laptops, printer, wireless access points, IP phones, etc.) per switch. Some locations have numerous users and require more than one switch.



The County has had a past precedent of reissuing network switches that were taken out of production due to age and redeploying those switches to other locations to keep costs low. The “Achilles heal” in this strategy is that the organization has ended up with a large number of aged switches that are at critical failure point and could result in extended outages for the remote sites.

In May 2020, the Livingston County Information Technology department began collecting data in a holistic manner on the County’s network equipment and benchmarking the data and information using the enterprise network monitoring system Solarwinds that was approved by the Livingston Board of Commissioners. This resulted in identifying 99 switches within the County’s network. These switches are in every County building with a computer, as well as at our local public safety police & fire stations (which are all on the Livingston County fiber optic network for central public safety reporting and dispatch). Many of these switches are older than fourteen years old and are throttling down respected shared network and fiber speeds down to 10 or 100 Megabytes when speeds of 1000 or 10,000 Megabytes are possible over the County’s fiber optic network. What does this mean...

- This means that County and Public Safety partner technology users are most likely experiencing slower network speeds, lowering productivity and slowing down county systems.
- County and Public safety partners are at high risk of network outages that could result in network outages that could be up to 7 days (depending on distribution channels and configuration complexity)

The general expected lifespan on a network switch is between 7 and 10 years from installation. We have identified 79 network switches that are our most vulnerable to failure with in our network and we should be working to begin replacing these switches over the next year. 16 of these switches were end of software maintenance in 2007 and end of Cisco support in 2011, 33 were end of software support in 2013. The remaining 30 were end of software support in 2014. The switches in question are estimated to have been installed prior to 2006 and 2012.

The Livingston County Information Technology Department has successfully worked with the Counties’ Cisco Partner Logicalis & Cisco to put together a replacement proposal for the 79 switches that are beyond their expected lifespan or end of support dates. This plan would allow for the purchase of 53 of the switches before the end of the year with an option to purchase the remaining switches at the current locked in discount we have agreed to with Logicalis and Cisco. We would be able to utilize the NASPO contract to obtain standardized negotiated governmental pricing, however we have successfully partnered with Cisco and Logicalis to a achieve significant discounts for the County tax payers that are much greater than standard pricing, government pricing and contract pricing.

The discount off the negotiated Livingston County cooperative discount is 73% off of the standard corporate rate and an 33% off of the governmental contract pricing.

The Final pricing is

- \$172,507.58 for the current 2020 year
- \$72,014.15 for the option to purchase the additional hardware before June 30, 2021

This will save our Livingston County Tax payers \$457,246.12 off the standard pricing

## Current Purchase

Cost Estimates Cisco Switches			Discounts									Proposed CIP 2021 -2026 Budgeted Amount
Quantity		Standard Corporate MSRP	Standard Governmental Contract pricing	\$\$ Savings Standard Gov Contract pricing	% Savings Standard Gov Contract pricing	Final Negotiated pricing	\$\$ Savings off MSRP	% Savings off MSRP	\$\$ Savings off Government Contract	% Savings off Government Contract		
Cisco Network Switches	Hardware	565,596.54	\$ 367,637.75	\$ 197,958.79	35%	\$148,758.00	\$416,838.54	74%	\$218,879.75	60%	Un Budgeted	
Cisco Switch DNA Software	Software	\$ 55,152.48	\$ 35,849.11	\$ 19,303.37	35%	\$ 16,545.82	\$ 38,606.66	70%	\$ 19,303.29	54%	Un Budgeted	
Cisco Support 3 year agreement	Services	\$ 9,004.68	\$ 7,473.88	\$ 1,530.80	17%	\$ 7,203.76	\$ 1,800.92	20%	\$ 270.12	4%	Un Budgeted	
<b>Totals</b>		<b>\$ 629,753.70</b>	<b>\$ 410,960.74</b>	<b>\$ 218,792.96</b>	<b>35%</b>	<b>\$172,507.58</b>	<b>\$457,246.12</b>	<b>73%</b>	<b>\$238,453.16</b>	<b>58%</b>	Un Budgeted	

## Option to purchase

Cost Estimates Cisco Phone and Switches			Discounts									Proposed CIP 2021 -2026 Budgeted Amount
Quantity		Standard Corporate MSRP	Standard Governmental Contract pricing	\$\$ Savings Standard Gov Contract pricing	% Savings Standard Gov Contract pricing	Final Negotiated pricing	\$\$ Savings off MSRP	% Savings off MSRP	\$\$ Savings off Government Contract	% Savings off Government Contract		
Phone System Hardware	Hardware	72,001.00	\$ 46,800.65	\$ 25,200.35	35%	\$ 24,480.50	\$ 47,520.50	66%	\$ 22,320.15	48%	Budgeted	
Cisco Network Switches	Software	\$ 256,837.09	\$ 166,944.11	\$ 89,892.98	35%	\$ 72,014.15	\$184,822.94	72%	\$ 94,929.96	57%	Un Budgeted	
Cisco Switch DNA Software	Services	\$ 26,462.30	\$ 17,200.00	\$ 9,262.30	35%	\$ 7,938.78	\$ 18,523.52	70%	\$ 9,261.22	54%	Un Budgeted	
<b>Totals</b>		<b>\$ 355,300.39</b>	<b>\$ 230,944.76</b>	<b>\$ 124,355.63</b>	<b>35%</b>	<b>\$104,433.43</b>	<b>\$ 250,866.96</b>	<b>71%</b>	<b>\$126,511.33</b>	<b>55%</b>		

## Recommendation

At this time, we are recommending moving forward to take advantage of the aggressive pricing negotiated by the Livingston County Information Technology team, Logicalis, and Cisco Systems and the purchase of the Cisco Network Switches 3 years of support, and components contained in the Logicalis Proposal "Livingston County: Switch Project Only with 3 – Year Support "Quotation # 2020 – 100897v2"" Dated October 27, 2020 with the Option to purchase Logicalis Proposal "Livingston County: Phone & Switch – Optional Components "Quotation # 2020 – 100880v1"" Dated October 26, 2020

### Funding recommendation:

We are recommending that:

- \$143,007.58 be spent from the IT departments 2020 747000 budget.
- \$20,500.00 from the Building Department,
- \$9000.00 from the Health Department COVID-19 CARES Act Grant Funding
- \$Total Amount = \$172,507.58

These switches are unbudgeted in the Livingston County Information Technology department 2020 budget,

Through other savings throughout the 2020 year there are funds available in the Departments current year budget, a cost share with the Building Department, and Cares

**Act Grant funding. This, will have no negative impact on the general fund and will significantly stabilize, solidify and improve the Livingston Counties Information technology infrastructure.**

Funding Breakdown					
Item	Department	Account	Source	Item	Amount
Network Switches	Information Technology	747000	Hardware Budget		\$ 34,235.58
Network Switches	Information Technology		CIP Funds		\$ 108,772.00
Network Switches East Complex	Health Dept	22160100-943012 601COVID19-NA-SUPPMAT-943012	Cares Act Funding		\$ 9,000.00
Network Switches East Complex	Building Department		J. Rowell agreed to Fund		\$ 20,500.00
<b>Subtotal</b>					<b>\$ 172,507.58</b>

### Finance options

Though our conversations with Logicalis and Cisco we inquired as to finance options, Cisco has put forth a generous 3-year 0% financing option. See below for specifics.

\$166,129.72 / 3 years = \$57,502.53 each year

Year 2021 Payment: \$57,502.53

Year 2022 Payment: \$57,502.53

Year 2023 Payment: \$57,502.53

Purchase options	Total Cost	Purchase Outright	Purchase 3 year 0% Cisco Capital (Annual payment)
Network Switches	\$ 172,507.58	\$ 172,507.58	\$ 57,502.53

### Option switch purchase

Purchase options	Total Cost	Purchase Outright	Purchase 3 year 0% Cisco Capital (Annual payment)
Network Switches	\$ 96,494.65	\$ 96,494.65	\$ 32,164.88