

Proposed Capital Improvement Plan

2019 thru 2023

Department Information Technology

City of Lawrence, Kansas

Contact IT Manager

Project #	IT1701CIP
Project Name	Access Layer Switches

Type Maintenance

Useful Life 7 years

Category Equipment

Dept. Priority 2 Very Important

Address

Unfunded

GIS Coordinate

Status Active

Description

Several network infrastructure pieces are now reaching the end of their useful life. These are network switches that PCs, Printers, and phones plug in to get network connectivity.

Justification

These critical pieces of our IT infrastructure must remain reliable and perform at the highest levels. The new VoIP phones are doubling our current network load on these devices. Our previous experience shows that after 7 years, the reliability of network equipment decreases significantly. Also, performance becomes an issue as old equipment becomes more obsolete. New security and monitoring features are becoming more critical as new threats emerge every day. Critical pieces that need replaced include:
 2017
 15 switches
 2018
 18 switches
 2019
 8 switches

Prior	Expenditures	2019	2020	2021	2022	2023	Total
110,500	Equip/Vehicles/Furnishings	60,000					60,000
Total		Total	60,000				60,000

Prior	Funding Sources	2019	2020	2021	2022	2023	Total
110,500	Equipment Reserve Fund	60,000					60,000
Total		Total	60,000				60,000

Budget Impact/Other

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Department Information Technology

City of Lawrence, Kansas

Contact IT Manager

Project #	IT2001CIP
Project Name	VMWare Hardware Refresh

Type Equipment
Useful Life 4 years
Category Equipment

Dept. Priority 1 Critical

Address

Unfunded

GIS Coordinate

Status Active

Description

This Project will provide for the replacement of the Hardware Infrastructure of our Virtual Server environment. The Majority of the City's Production servers and backup structure reside in this environment.

Justification

we currently have 45 servers residing on our VMware environment. These servers represent the majority of our critical systems. A few examples are:
 web server
 Exchange OWA
 Citydata
 Engineer
 Utilities
 Innoprise
 These systems must be replaced on a 4 year schedule to ensure the highest levels of reliability and performance. All the hosts and the primary SAN targets must also be replaced together to ensure the highest degree of compatability. As the city's Technology demands increase, the Vmware environment will provide flexibility to deploy new servers without additional cost by using the existing virtual environment.

Expenditures	2019	2020	2021	2022	2023	Total
Equip/Vehicles/Furnishings		100,000				100,000
Total		100,000				100,000

Funding Sources	2019	2020	2021	2022	2023	Total
Equipment Reserve Fund		100,000				100,000
Total		100,000				100,000

Budget Impact/Other

Supporting the VMware provides and efficiency in equipment costs, maintenance costs, and overhead costs. Comparable equipment costs for physical servers would be roughly twice the cost compared to a virtualized environment. Estimated saving on hardware over the last five years has been \$18,000/year. Overhead costs can be significant also. The physical space required for the comparable physical servers would exceed the load recommendations of the floor under the server room causing significant renovation. The air conditioning load and electricity could be easily 3 times what it currently is.

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Department Information Technology

City of Lawrence, Kansas

Contact

Project #	ITFIBER
Project Name	Annual Fiber Projects

Type Unassigned

Useful Life

Category Unassigned

Dept. Priority

Address

Unfunded

GIS Coordinate

Status Active

Description

Justification

Prior	Expenditures	2019	2020	2021	2022	2023	Total
100,000	Equip/Vehicles/Furnishings	150,000	150,000	150,000	150,000	150,000	750,000
Total	Total	150,000	150,000	150,000	150,000	150,000	750,000

Prior	Funding Sources	2019	2020	2021	2022	2023	Total
100,000	Equipment Reserve Fund	150,000	150,000	150,000	150,000	150,000	750,000
Total	Total	150,000	150,000	150,000	150,000	150,000	750,000

Budget Impact/Other

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Department Information Technology

City of Lawrence, Kansas

Contact IT Manager

Project #	ITSECCIP
Project Name	I.T. Security and Network Systems Enhancements

Type Improvement

Useful Life 5 years

Category Equipment

Dept. Priority 1 Critical

Address

Unfunded

GIS Coordinate

Status Active

Description
Network and security system improvements, may include third-party services

Justification
I.T. has investigated several security and network systems upgrades that would help protect the City's network. Some evaluations were also of third-party company services. The estimated costs were from systems being evaluated.

Expenditures	2019	2020	2021	2022	2023	Total
Other	120,000					120,000
Total	120,000					120,000

Funding Sources	2019	2020	2021	2022	2023	Total
Equipment Reserve Fund	120,000					120,000
Total	120,000					120,000

Budget Impact/Other
\$120,000 for the first year. Depending on equipment or system chosen, maintenance cost may be required to be in the department budget for on-going maintenance.

Budget Items	2019	2020	2021	2022	2023	Total
Supplies/Materials	120,000					120,000
Total	120,000					120,000