Department	Information Technology
Contact	IT Manager

Project #	**IT1701CIP**
Project Name	**Access Layer Switches**

Type	Maintenance
Useful Life	7 years
Category	Equipment

Department Priority   2 Very Important

Unfunded

Priority	1 Critical
Status	Active
Total Project Cost:	**$170,000**

Description

Several network infrastructure piecesare 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

Expenditures	2017	2018	2019	2020	2021	Total
Equip/Vehicles/Furnishings	49,500	61,000	59,500			170,000
Total	49,500	61,000	59,500			170,000

Funding Sources	2017	2018	2019	2020	2021	Total
Equipment Reserve Fund	49,500	61,000	59,500			170,000
Total	49,500	61,000	59,500			170,000

Budget Impact/Other

Department	Information Technology
Contact	IT Manager

Project #	**IT2001CIP**
Project Name	**VMWare Hardware Refresh**

Type	Equipment
Useful Life	4 years
Category	Equipment

Department Priority 1 Critical

Unfunded

Priority	1 Critical
Status	Active
Total Project Cost:	**$80,000**

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	2017	2018	2019	2020	2021	Total
Equip/Vehicles/Furnishings				80,000		80,000
Total				80,000		80,000

Funding Sources	2017	2018	2019	2020	2021	Total
Equipment Reserve Fund				80,000		80,000
Total				80,000		80,000

Budget Impact/Other

Supporting the VMware provides and effeciency 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.