

Sample business case

Server/Storage Consolidation

- Save \$4.4M overall over 5-yr. period
 - > Save \$2.6M in Hardware
 - > Save \$0.8M Hardware Maintenance
- Reduce power by 75% and floorspace by 90%
- Payback in 22 months

Financial Metrics

Initial Investment	\$1,321,942
Net Present Value (NPV)	\$4,454,758
Payback months	22
Return on Investment (ROI)	337%
Internal Rate of Return (IRR)	73%
Cash flow discounting	Year end
Cost of 3 month delay	\$111,369

Eco Metrics

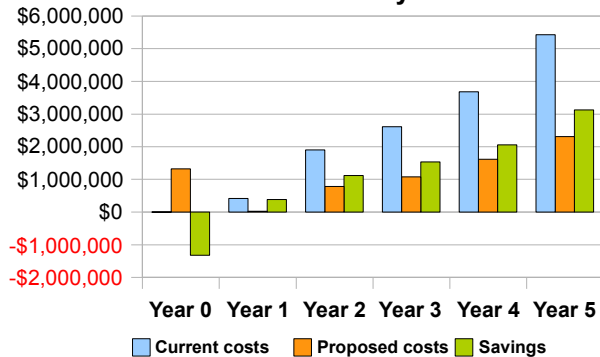
	Current	Proposed	Pct. Reduction
Power kWh/month	33,957	8,479	75%
Cooling kWh/month	27,166	6,783	75%
CO2 MT/month	37.15	9.28	75%
Floor space sq. ft	298	29	90%
Racks	9	1	89%

NPV of Savings by Category

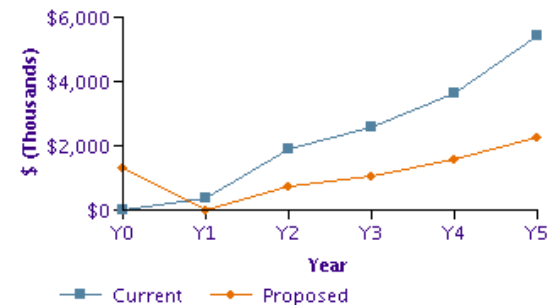
Hardware	\$2,631,769
Hardware maintenance	\$788,178
Environmental	\$746,376
Software acquisition and maintenance	\$219,953
Other implementation costs	\$68,482
Total Benefits	\$4,454,758

Cash Flow Analysis (Undiscounted)			
	Current	Proposed	Savings
Year 0	\$0	\$1,321,942	-\$1,321,942
Year 1	\$413,324	\$25,366	\$387,958
Year 2	\$1,902,345	\$780,163	\$1,122,182
Year 3	\$2,608,172	\$1,075,770	\$1,532,402
Year 4	\$3,676,273	\$1,616,200	\$2,060,073
Year 5	\$5,430,809	\$2,309,296	\$3,121,513
Totals	\$14,030,923	\$7,128,737	\$6,902,186

Cash Flow Analysis

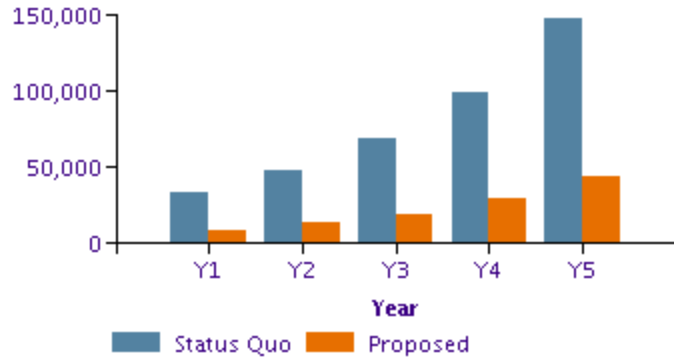


Total Cash Flow

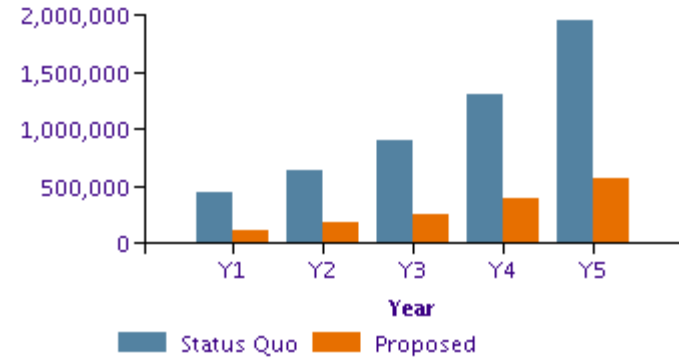


Power and Floorspace - Sample

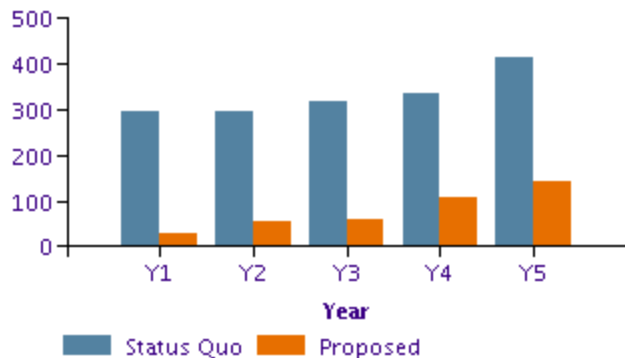
Power (kWh per month)



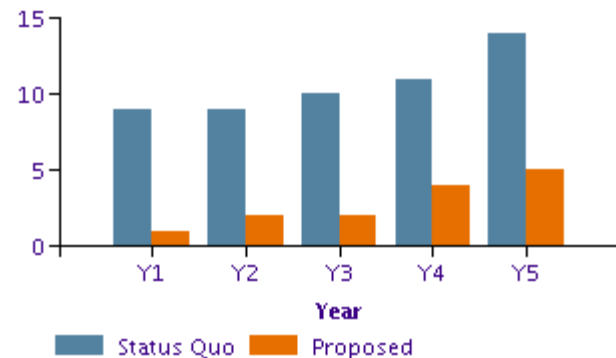
CO2 Emissions (kg)



Floor Space (per month)



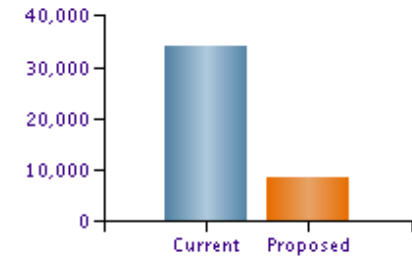
Racks



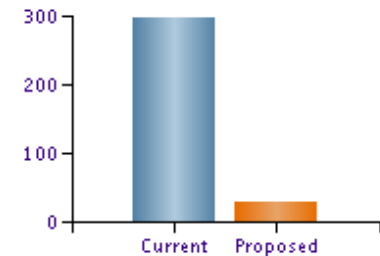
Eco Details - Sample

Current	per unit	Year 1	Year 2	Year 3	Year 4	Year 5
Offline cartridges (outside of library but on-site)						
Total quantity in place during the year (units)		0	0	0	0	0
Required raised floor space, sq. feet		0	0	0	0	0
Total required raised floor space, sq. feet		298	298	316	334	415
Raised floor monthly cost/ sq. foot		\$20	\$21	\$22	\$23	\$24
Total monthly raised floor space cost		\$5,952	\$6,250	\$6,963	\$7,732	\$10,096
Total annual raised floor space cost		\$71,429	\$75,000	\$83,561	\$92,790	\$121,158
Total monthly power requirements, kWh		33,957	48,271	69,133	99,822	148,619
Power cost per kWh		\$0.10	\$0.11	\$0.11	\$0.12	\$0.12
Total monthly power cost		\$3,396	\$5,068	\$7,622	\$11,556	\$18,065
Total monthly cooling cost		\$2,717	\$4,055	\$6,098	\$9,245	\$14,452
Total monthly power and cooling cost		\$6,112	\$9,123	\$13,719	\$20,800	\$32,517
Total annual power and cooling cost		\$73,348	\$109,478	\$164,634	\$249,602	\$390,199
Total	\$0	\$144,776	\$184,478	\$248,194	\$342,392	\$511,356
5 year discounted TCO		\$1,021,919				
Proposed						
Offline cartridges (outside of library but on-site)						
Total quantity in place during the year (units)		0	0	0	0	0
Required raised floor space, sq. feet		0	0	0	0	0
Total required raised floor space, sq. feet		29	54	61	109	142
Raised floor monthly cost/ sq. foot		\$20	\$21	\$22	\$23	\$24
Total monthly raised floor space cost		\$588	\$1,139	\$1,344	\$2,513	\$3,461
Total annual raised floor space cost		\$7,051	\$13,674	\$16,130	\$30,150	\$41,527
Total monthly power requirements, kWh		8,479	13,432	19,575	29,717	44,003
Power cost per kWh		\$0.10	\$0.11	\$0.11	\$0.12	\$0.12
Total monthly power cost		\$848	\$1,410	\$2,158	\$3,440	\$5,349
Total monthly cooling cost		\$678	\$1,128	\$1,727	\$2,752	\$4,279
Total monthly power and cooling cost		\$1,526	\$2,539	\$3,885	\$6,192	\$9,627
Total annual power and cooling cost		\$18,315	\$30,463	\$46,616	\$74,306	\$115,528
Total	\$0	\$25,366	\$44,137	\$62,746	\$104,456	\$157,055
5 year discounted TCO		\$275,543				

Total Power (Kwh/Month)



Total squarefeet



Environmental Cash Flow

