

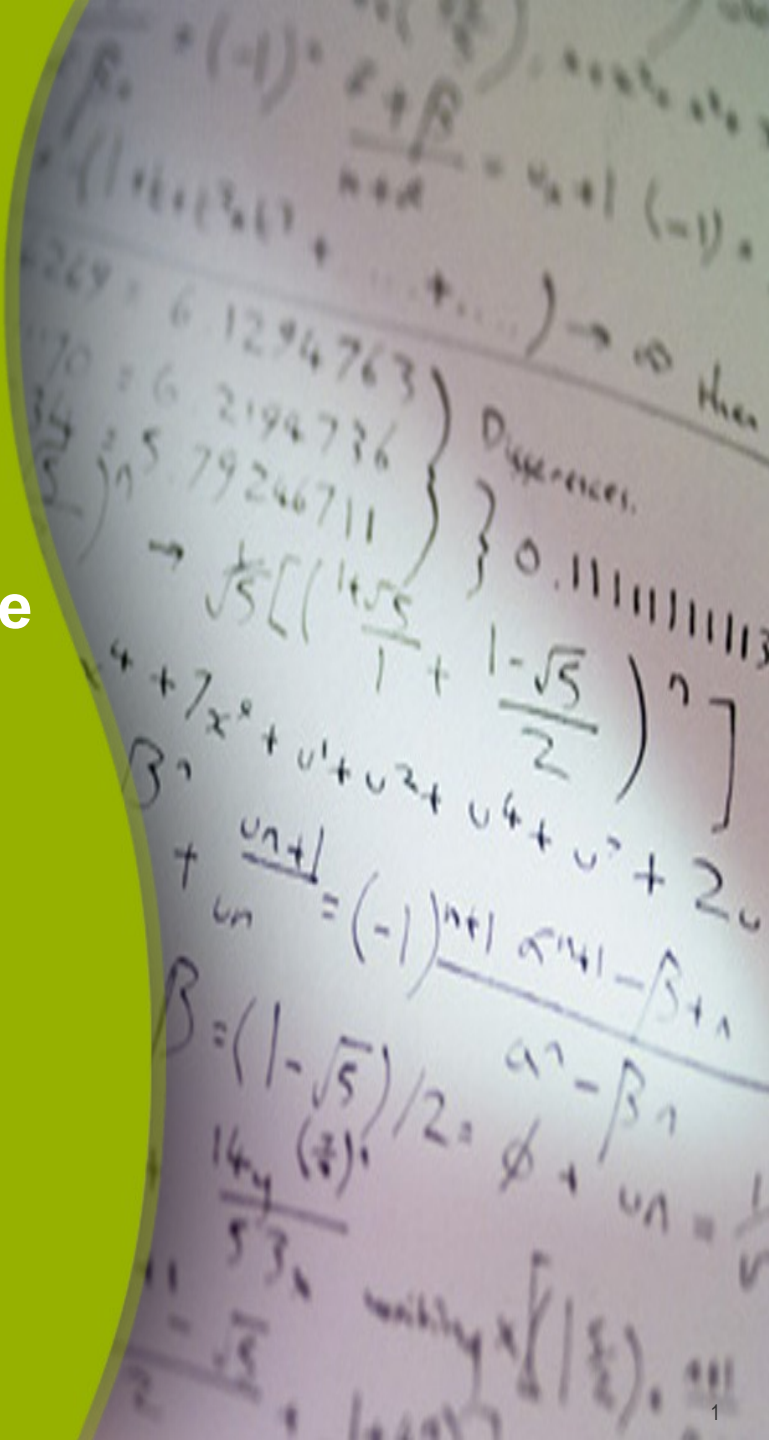


ABC Company

Sample TCO Analysis/Business case

Server and Storage Solution

April 13, 2009

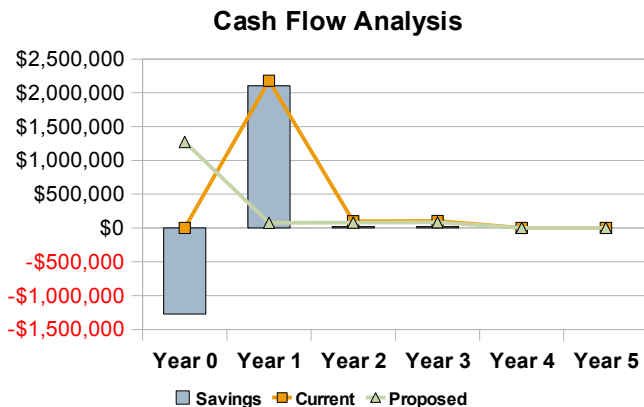


Sample business case

Server and Storage Solution

- Save \$0.9M over 3-yr. period
 - > Save \$0.5M in Software
 - > Save more than \$0.3M in Hardware
 - > Lower floor space and power costs

Cash Flow Analysis				
	Current	Proposed	Savings	Savings (NPV)
Year 0	\$0	\$1,273,821	-\$1,273,821	-\$1,273,821
Year 1	\$2,178,687	\$75,904	\$2,102,783	\$2,102,783
Year 2	\$99,950	\$79,699	\$20,251	\$20,251
Year 3	\$104,348	\$83,684	\$20,663	\$20,663
Year 4	\$0	\$0	\$0	\$0
Year 5	\$0	\$0	\$0	\$0
Total	\$2,382,985	\$1,513,108	\$869,876	\$869,876



Financial Metrics

Initial Investment	\$1,273,821
Total Savings (NPV)	\$869,876
Payback months	8
ROI % based on total investment (preferred)	58%
ROI % based on initial investment	68%
Internal Rate of Return (IRR)	67%
Cost of 3 month delay	\$0
Cost of capital	0%
Cash flow discounting	Year end

Eco Metrics (initial)

	Current	Proposed	Pct. Reduction
Initial year 1 power kWh/mo	29,972	28,268	6%
Initial year 1 cooling kWh/m	23,978	22,614	6%
Initial year 1 CO2 MT/month	32.79	30.93	6%
Initial year 1 floor space sq.	79	62	22%
Initial year 1 racks	3.57	2.86	20%

Server Performance Metrics (initial)

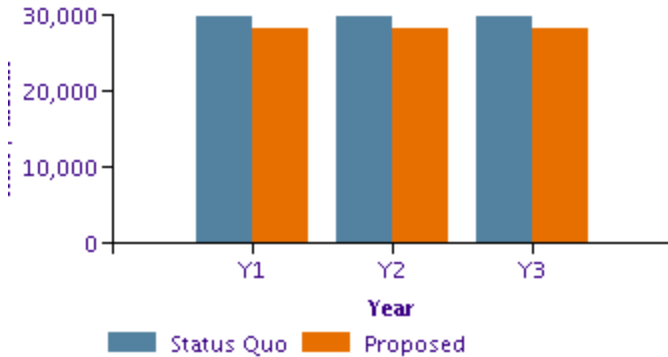
	Current	Proposed	Consolidation ratio
Servers	15	12	1.3 : 1
Boards	120	120	1.0 : 1
Chips	240	240	1.0 : 1
Cores	960	960	1.0 : 1
Avg chip speed	2.9	2.9	1.0 : 1
RAM	1,920	1,920	1.0 : 1

Savings by Category (NPV)

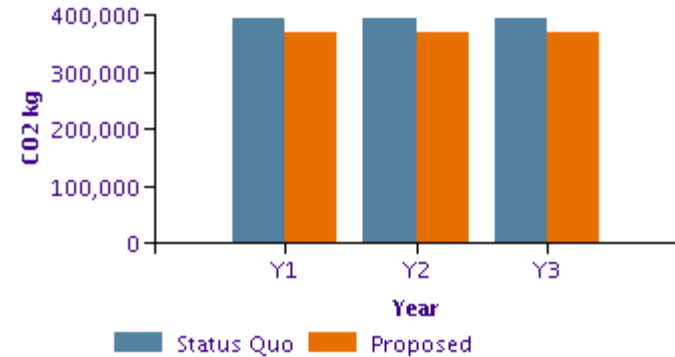
Software acquisition and maintenance	\$497,880
Hardware	\$347,224
Environmental	\$24,772
Total Savings (NPV)	\$869,876

Power and Floor Space - Sample

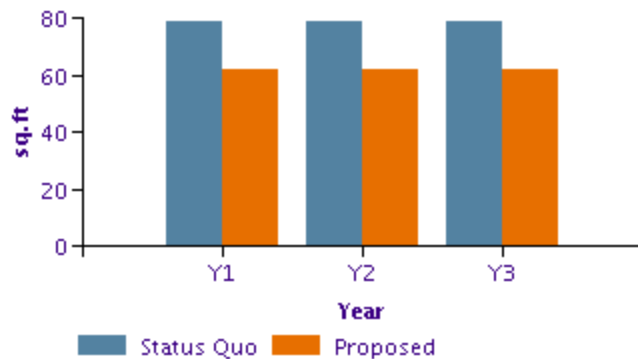
Power (kWh per month)



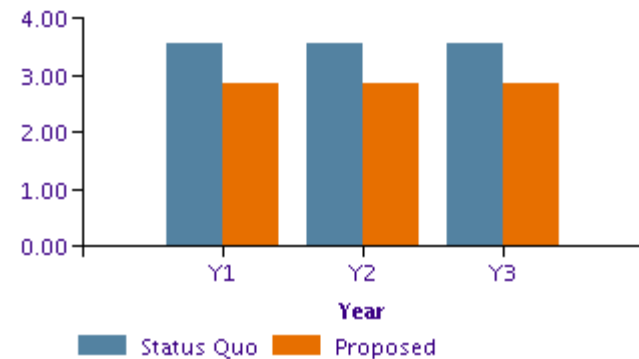
CO2 Emissions (kg per year)



Floor Space



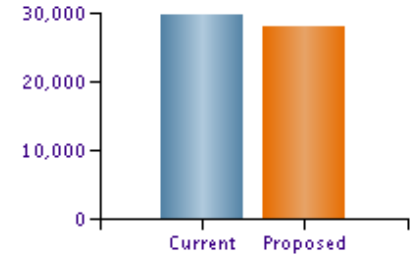
Racks



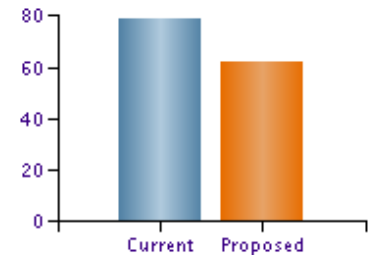
Eco Details - Sample

Current	per unit	Year 1	Year 2	Year 3
Offline cartridges (outside of library but on-site)				
Total quantity in place during the year (units)		0	0	0
Required raised floor space, sq. feet		0	0	0
Total required raised floor space, sq. feet		79	79	79
Raised floor monthly cost/ sq. foot		\$20	\$21	\$22
Total monthly raised floor space cost		\$1,585	\$1,664	\$1,748
Total annual raised floor space cost		\$19,022	\$19,973	\$20,971
Total monthly power requirements, kWh		29,972	29,972	29,972
Power cost per kWh		\$0.10	\$0.11	\$0.11
Total monthly power cost		\$2,997	\$3,147	\$3,304
Total monthly cooling cost		\$2,398	\$2,518	\$2,644
Total monthly power and cooling cost		\$5,395	\$5,665	\$5,948
Total annual power and cooling cost		\$64,740	\$67,977	\$71,376
Total	\$0	\$83,762	\$87,950	\$92,348
3 year discounted Total	\$264,060			
Proposed				
per unit	Year 1	Year 2	Year 3	
Offline cartridges (outside of library but on-site)				
Total quantity in place during the year (units)		0	0	0
Required raised floor space, sq. feet		0	0	0
Total required raised floor space, sq. feet		62	62	62
Raised floor monthly cost/ sq. foot		\$20	\$21	\$22
Total monthly raised floor space cost		\$1,237	\$1,299	\$1,364
Total annual raised floor space cost		\$14,846	\$15,588	\$16,367
Total monthly power requirements, kWh		28,268	28,268	28,268
Power cost per kWh		\$0.10	\$0.11	\$0.11
Total monthly power cost		\$2,827	\$2,968	\$3,117
Total monthly cooling cost		\$2,261	\$2,374	\$2,493
Total monthly power and cooling cost		\$5,088	\$5,343	\$5,610
Total annual power and cooling cost		\$61,058	\$64,111	\$67,317
Total	\$0	\$75,904	\$79,699	\$83,684
3 year discounted Total	\$239,288			

Total Power (Kwh/Month)



Total squarefeet



Environmental Cash Flow

