

Total Cost of Ownership (TCO) Analysis**Basic Information****Proposal Information**

Name for System A	TDM Trunking
Brief Description of System	Legacy system using T1/PRI in larger sites and analog lines in smaller sites.
Description for System B	IP Trunking
Brief Description of System	Proposed IP Trunking system on a centralized hub and spoke data network.

Counts	Qty
Sites	20
Seats	3,000
Simultaneous Call Paths (Excluding Fax)	120
Fax Lines	-

CPE Purchase/Lease Option

Acquisition Method	Purchase
If Lease is Selected:	
Lease Rate	0.00000
Buyout Rate	0%
(Assumed buyout for FMV lease, set to zero if \$1 option instead of FMV)	

Financial Factors

Cost of Capital	11%
Income Tax Rate (set to zero if gov't or non-profit)	35%
Depreciation Method and Useful Life for CPE	DDB/SL 5-yr

Disclaimer

The financial, engineering and cost assumptions incorporated in this model are estimates, therefore the financial metrics produced by the tool are illustrative only. Customer's use of services and savings, if any, will vary. Customer should make its own independent assessment of the costs and benefits associated with its purchasing decisions. Verizon makes no warranties or guarantees of any specific financial metrics or savings. Terms and conditions of service(s) will be governed exclusively by the applicable service agreement, contract or tariff arrangement entered into between Verizon and the customer.

Total Cost of Ownership (TCO) Analysis**TDM Trunking**

Voice Network Costs	Non-Recurring Charges			Monthly Recurring Charges		
	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
T1 / PRI's			\$ -	4	\$ 1,347.95	\$ 5,391.80
Analog Lines			\$ -			\$ -
DID's (blocks of 20)			\$ -	20	\$ 6.25	\$ 990.00
Other (describe)			\$ -			\$ -
Subtotals			\$ -			\$ 6,381.80

Usage Costs	Plan Minutes		Rate	Total Cost
	Included	Overage Minutes		
Local				\$ -
Long Distance	-	264,750	\$ 0.0240	\$ 6,354.99
Other (describe)				\$ -
Subtotal				\$ 6,354.99

Data Network Costs	Non-Recurring Charges			Monthly Recurring Charges		
	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Frame Relay			\$ -			\$ -
PIP Access, Port, Gold CAR			\$ -			\$ -
IDA Access and Port, Gold CAR			\$ -			\$ -
Other (describe)			\$ -			\$ -
Subtotals			\$ -			\$ -

CPE Costs	Non-Recurring Charges			Monthly Recurring Charges		
	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
New Routers			\$ -			\$ -
Router Upgrades			\$ -			\$ -
T1/PRI Interfaces			\$ -			\$ -
DSP's			\$ -			\$ -
Other (describe)			\$ -			\$ -
Subtotals			\$ -			\$ -

Total Non-Recurring Cost (Capital Expense)	\$ -
Total Monthly Cost (Excluding Lease Payments)	\$ 12,736.79
Total Annual Cost	\$ 152,841.48

Total Cost of Ownership (TCO) Analysis**IP Trunking**

Voice Network Costs	Non-Recurring Charges			Monthly Recurring Charges		
	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Service Establishment Fee		\$	-	2	\$ 1,000.00	\$ 2,000.00
VoIP Simultaneous Calls		\$	-	120	\$ 31.50	\$ 3,780.00
DID's (blocks of 20)		\$	-	300	\$ 5.63	\$ 1,689.00
Analog Lines for Fax/MNS/911		\$	-			\$ -
Other (describe)		\$	-	-	\$ -	\$ -
Subtotals		\$	-			\$ 7,469.00

Usage Costs	Plan Minutes		Rate	Total Cost
	Included	Overage Minutes		
Local	Included			\$ -
Long Distance	180,000	-	\$ 0.0240	\$ -
Other (describe)				\$ -
Subtotal				\$ -

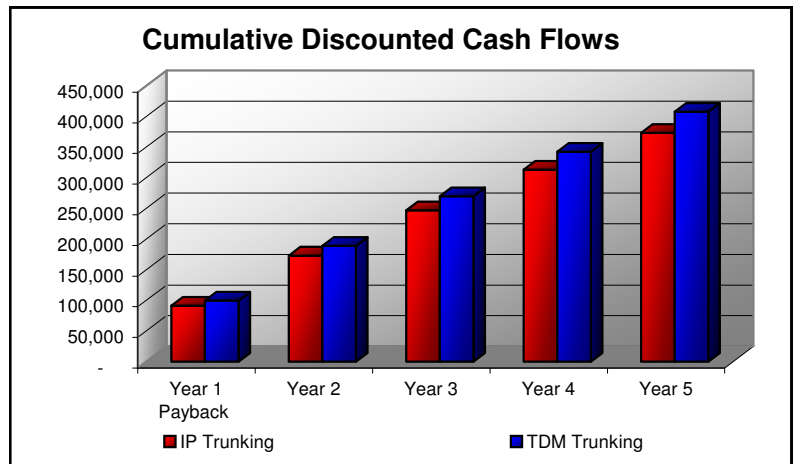
Data Network Costs	Non-Recurring Charges			Monthly Recurring Charges		
	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Hub Site: Access Loop		\$	-			\$ -
Hub Site: Port		\$	-			\$ -
Hub Site: Gold CAR		\$	-	1	\$ 4,187.46	\$ 4,187.46
Remote Sites: Access Loop		\$	-			\$ -
Remote Sites: Port		\$	-			\$ -
Remote Sites: Gold CAR		\$	-	-	\$ -	\$ -
Other (describe)		\$	-			\$ -
Subtotals		\$	-			\$ 4,187.46

CPE Costs	Non-Recurring Charges			Monthly Recurring Charges		
	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
New routers at hub site		\$ -	\$ -	-	\$ -	\$ -
Upgrades to existing router at hub site	1	\$ -	\$ -	1	\$ -	\$ -
New routers at remote sites		\$ -	\$ -	-	\$ -	\$ -
Upgrades to existing routers at remote sites		\$ -	\$ -	-	\$ -	\$ -
T1/PRI Interfaces		\$	-			\$ -
DSP's		\$	-			\$ -
Firewalls		\$	-			\$ -
Gateways		\$	-			\$ -
Other (describe)		\$	-			\$ -
Subtotals		\$	-			\$ -

Total Non-Recurring Cost (Capital Expense)	\$ -
Total Monthly Cost (Excluding Lease Payments)	\$ 11,656.46
Total Annual Cost	\$ 139,877.52

Total Cost of Ownership (TCO) Analysis**Summary****Solution Which Provides Lower TCO: IP Trunking**

Financial Metrics for IP Trunking		
Net Present Value (NPV)	\$	34,570
Must be positive. Reflects 5-year cash flows as if they were a lump-sum today.		
Return on Investment (ROI)		N/A
The NPV divided by the present value of the Cap Ex.		
Internal Rate of Return (IRR)		N/A
The rate at which all cash flows equal breakeven. This will be N/A if breakeven is in year 1.		
Payback Period		Year 1
The point in time at which the solution breaks even.		
Discounted Payback Period		Year 1
Payback calculated with discounted cash flows.		
Monthly Cost/Seat		
TDM Trunking		\$2
IP Trunking		\$2



Cash Outflows - After Tax	Year 1	Year 2	Year 3	Year 4	Year 5	Total
TDM Trunking	152,841	152,841	152,841	152,841	152,841	152,841
IP Trunking	142,109	142,109	142,109	142,109	142,109	142,109
Difference	10,732	10,732	10,732	10,732	10,732	10,732
Cumulative Difference	10,732	21,464	32,196	42,928	53,660	\$53,660

Payback

Savings by Category - After Tax	CapEx	5-Year OpEx	Totals
Voice Network Costs	-	(65,232)	(65,232)
Usage Costs	-	381,299	381,299
Data Network Costs	-	(251,248)	(251,248)
CPE Costs	-	-	-
Management and Support	-	-	-
Totals	-	64,820	64,820

Total Cost of Ownership (TCO) Analysis**Cash Flow Details**

TDM Trunking	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Operating Expenses	152,841	152,841	152,841	152,841	152,841	764,207
Lease Payments	-	-	-	-	-	-
Depreciation on Capital Purchase	-	-	-	-	-	-
Total Deductions	152,841	152,841	152,841	152,841	152,841	764,207
Less: Tax Benefit of Deductions	53,495	53,495	53,495	53,495	53,495	267,473
Operating Expenses After Tax	99,347	99,347	99,347	99,347	99,347	496,735
Less: Depreciation	-	-	-	-	-	-
Capital Expenses	-	-	-	-	-	-
Cash Outflows After Tax	99,347	99,347	99,347	99,347	99,347	496,735

IP Trunking	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Operating Expenses	139,878	139,878	139,878	139,878	139,878	699,388
Lease Payments	-	-	-	-	-	-
Depreciation on Capital Purchase	-	-	-	-	-	-
Total Deductions	139,878	139,878	139,878	139,878	139,878	699,388
Less: Tax Benefit of Deductions	48,957	48,957	48,957	48,957	48,957	244,786
Operating Expenses After Tax	90,920	90,920	90,920	90,920	90,920	454,602
Less: Depreciation	-	-	-	-	-	-
Capital Expenses	-	-	-	-	-	-
Cash Outflows After Tax	90,920	90,920	90,920	90,920	90,920	454,602

Cumulative Discounted Cash Flows	Year 1	Year 2	Year 3	Year 4	Year 5
TDM Trunking	99,347	188,849	269,481	342,123	407,566
IP Trunking	90,920	172,831	246,624	313,104	372,996
Difference	8,427	16,018	22,857	29,019	34,570

Payback

Assumptions

- 1) This model assumes full rollout in the first year, so there is no deployment schedule where a new solution is deployed in phases.
- 2) Leases are treated as operating leases until buyout option is exercised, when the buyout price is then treated as a new capex.
- 3) All expenses are assumed to stay flat during the 5-year period (no inflation is assumed).
- 4) This model accounts for corporate net income tax but not telecom taxes or "tax-like" charges.