



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	2
Seats	3,000
Simultaneous Call Paths (Excluding Fax)	122
Fax Lines	-

CPE Purchase/Lease Option

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

Financial Factors

Cost of Capital	11%
Income Tax Rate (set to zero if gov't or non-profit)	0%
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	\$ 1,290.76	\$ 5,163.02
Analog Lines			\$ -			\$ -
DID's (1st block of 100)			\$ -	1	\$ 105.00	\$ 105.00
DID's (Additional blocks of 100)			\$ -	59	\$ 15.00	\$ 885.00
Subtotals			\$ -			\$ 6,153.02

Usage Costs	Plan Minutes		Rate	Total Cost
	Included	Overage Minutes		
Local				\$ -
Long Distance		24,914	\$ 0.1703	\$ 4,242.82
Other (describe)				\$ -
Subtotal				\$ 4,242.82

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)	\$ 10,395.84
Total Annual Cost	\$ 124,750.08

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			\$ -	182	\$ 31.50	\$ 5,733.00
DID's (blocks of 20)	301	\$ 5.00	\$ 1,505.00	301	\$ 5.63	\$ 1,694.63
Analog Lines for Fax/MNS/911			\$ -			\$ -
Other (describe)			\$ -			\$ -
Subtotals			\$ 3,505.00			\$ 7,427.63

Usage Costs	Plan Minutes		Rate	Total Cost
	Included	Overage Minutes		
Local	Included			\$ -
Long Distance	273,000	-	\$ 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			\$ -	2	\$ 1,530.00	\$ 3,060.00
Hub Site: Gold CAR			\$ -	-	\$ -	\$ -
Remote Sites: Access Loop			\$ -			\$ -
Remote Sites: Port			\$ -			\$ -
Remote Sites: Gold CAR			\$ -	-	\$ -	\$ -
Other (describe)			\$ -			\$ -
Subtotals			\$ -			\$ 3,060.00

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	-	\$ -	\$ -	-	\$ -	\$ -
New routers at remote sites		\$ -	\$ -	-	\$ -	\$ -
Upgrades to existing routers at remote sites		\$ -	\$ -	-	\$ -	\$ -
T1/PRI Interfaces			\$ -			\$ -
DSP's			\$ -			\$ -
Firewalls			\$ -			\$ -
Gateways			\$ -			\$ -
Other (describe)			\$ -			\$ -
Subtotals			\$ -			\$ -

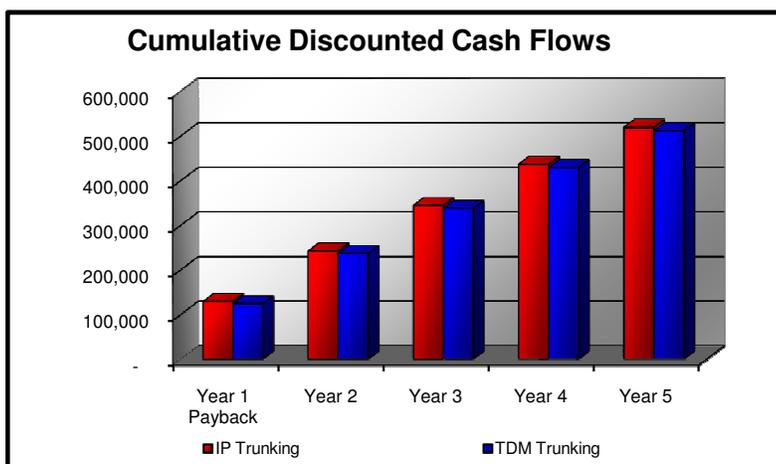
Total Non-Recurring Cost (Capital Expense)	\$ 3,505.00
Total Monthly Cost (Excluding Lease Payments)	\$ 10,487.63
Total Annual Cost	\$ 125,851.56



Summary

Solution Which Provides Lower TCO: TDM Trunking

Financial Metrics for TDM Trunking	
Net Present Value (NPV)	\$ 8,024
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)	#NUM!
The rate at which all cash flows equal breakeven. This will be N/A if breakeven is in year 1.	
Payback Period	#N/A
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	\$3
IP Trunking	\$3



Cash Outflows - After Tax	Year 1	Year 2	Year 3	Year 4	Year 5	Total
TDM Trunking	124,750	124,750	124,750	124,750	124,750	623,750
IP Trunking	125,852	125,852	125,852	125,852	125,852	629,258
Difference	(1,101)	(1,101)	(1,101)	(1,101)	(1,101)	(5,507)
Cumulative Difference	(1,101)	(2,203)	(3,304)	(4,406)	(5,507)	

Savings by Category - After Tax	CapEx	5-Year OpEx	Totals
Voice Network Costs	3,505	76,477	79,982
Usage Costs	-	(254,569)	(254,569)
Data Network Costs	-	183,600	183,600
CPE Costs	-	-	-
Management and Support	-	-	-
Totals	3,505	5,507	9,012

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

TDM Trunking	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Operating Expenses	124,750	124,750	124,750	124,750	124,750	623,750
Lease Payments	-	-	-	-	-	-
Depreciation on Capital Purchase	-	-	-	-	-	-
Total Deductions	124,750	124,750	124,750	124,750	124,750	623,750
Less: Tax Benefit of Deductions	-	-	-	-	-	-
Operating Expenses After Tax	124,750	124,750	124,750	124,750	124,750	623,750
Less: Depreciation	-	-	-	-	-	-
Capital Expenses	-	-	-	-	-	-
Cash Outflows After Tax	124,750	124,750	124,750	124,750	124,750	623,750

IP Trunking	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Operating Expenses	125,852	125,852	125,852	125,852	125,852	629,258
Lease Payments	-	-	-	-	-	-
Depreciation on Capital Purchase	1,402	841	505	379	379	3,505
Total Deductions	127,254	126,693	126,356	126,230	126,230	632,763
Less: Tax Benefit of Deductions	-	-	-	-	-	-
Operating Expenses After Tax	127,254	126,693	126,356	126,230	126,230	632,763
Less: Depreciation	(1,402)	(841)	(505)	(379)	(379)	(3,505)
Capital Expenses	3,505	-	-	-	-	3,505
Cash Outflows After Tax	129,357	125,852	125,852	125,852	125,852	632,763

Cumulative Discounted Cash Flows	Year 1	Year 2	Year 3	Year 4	Year 5
TDM Trunking	124,750	237,138	338,388	429,604	511,780
IP Trunking	129,357	242,736	344,880	436,902	519,804
Difference	4,606	5,599	6,493	7,298	8,024

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.