

Total Cost of Ownership (TCO) - Inhouse Model

The Total Cost of Ownership (TCO) model created by Info-Tech Research Group provides organizations with a framework for managing IT costs at strategic and daily operational levels. The model breaks IT costs into two categories: direct and indirect. The table below lists the various costs associated with each category. Due to the highly subjective nature of a TCO calculation, this should not be taken as an exhaustive list. There are spaces within each section of the TCO spreadsheet to add other cost categories as required.

Inhouse model is defined as an organization acquiring and operating the necessary hardware and software on-site.

Direct Costs	
Hardware & Software	The capital expenditures and lease fees for servers, client computers, peripherals, network components, and software.
Management	The costs associated with network, system and storage management, including labor staffing, maintenance contracts, and professional services or outsourcing fees.
Support	The support staff labor hours and costs, training labor and fees, travel, support contracts and management overhead.
Implementation	Cost associated with the implementation of the application. These usually include development (customization and integration), testing, training, and consulting.
Communications fees	The inter-computer communication expenses for leased lines, remote access, and allocated WAN expenses.
Indirect Costs	
End user IS	The cost of formal end-user training, casual learning, informal support outside recognized IT support channels, self-development of applications, and local file maintenance.
Downtime	The lost productivity due to planned and unplanned network, system, and application unavailability.

TCO Calculation In-House Model

Direct Costs	Year 1	Year 2	Year 3	Total (\$)	% of Total Cost
Hardware					
Servers	\$ 12,000.00	\$ 4,000.00	\$ 4,000.00	\$ 20,000.00	2.5%
Client computers (10)	\$ 15,000.00	\$ 3,000.00	\$ 3,000.00	\$ 21,000.00	2.6%
Peripherals (5)	\$ 15,000.00	\$ 2,500.00	\$ 2,500.00	\$ 20,000.00	2.5%
Network components	\$ 5,000.00	\$ 1,000.00	\$ 1,000.00	\$ 7,000.00	0.9%
Maintenance fees (20%)	\$ 10,400.00	\$ 2,100.00	\$ 2,100.00	\$ 14,600.00	1.8%
...	\$ -	\$ -	\$ -	\$ -	0.0%
Total Hardware Costs	\$ 57,400.00	\$ 12,600.00	\$ 12,600.00	\$ 82,600.00	10.3%
Software					
License (based on 3 physicians)	\$ 10,800.00	\$ 10,800.00	\$ 10,800.00	\$ 32,400.00	4.1%
Maintenance fees (20%)	\$ 2,160.00	\$ 2,160.00	\$ 2,160.00	\$ 6,480.00	0.8%
...	\$ -	\$ -	\$ -	\$ -	0.0%
...	\$ -	\$ -	\$ -	\$ -	0.0%
Total Software Costs	\$ 12,960.00	\$ 12,960.00	\$ 12,960.00	\$ 38,880.00	4.9%
Management					
Network	\$ 30,000.00	\$ 30,900.00	\$ 31,827.00	\$ 92,727.00	11.6%
Systems	\$ 30,000.00	\$ 30,900.00	\$ 31,827.00	\$ 92,727.00	11.6%
Storage	\$ 30,000.00	\$ 30,900.00	\$ 31,827.00	\$ 92,727.00	11.6%
...	\$ -	\$ -	\$ -	\$ -	0.0%
...	\$ -	\$ -	\$ -	\$ -	0.0%
Total Management Costs	\$ 90,000.00	\$ 92,700.00	\$ 95,481.00	\$ 278,181.00	34.8%
Support					
Support staff (Based on 6 fte's)	\$ 35,360.00	\$ 36,420.00	\$ 37,517.00	\$ 109,297.00	13.7%
Training fees	\$ 2,500.00	\$ 1,000.00	\$ 1,000.00	\$ 4,500.00	0.6%
Procurement procedures	\$ 5,000.00	\$ 1,500.00	\$ 1,500.00	\$ 8,000.00	1.0%
Travel	\$ 1,000.00	\$ 500.00	\$ 500.00	\$ 2,000.00	0.3%
Support contracts	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 30,000.00	3.8%
...	\$ -	\$ -	\$ -	\$ -	0.0%
...	\$ -	\$ -	\$ -	\$ -	0.0%
Total Support Costs	\$ 53,860.00	\$ 49,420.00	\$ 50,517.00	\$ 153,797.00	19.2%
Implementation					
Development/customization/integration	\$ 15,000.00	\$ 5,000.00	\$ 5,000.00	\$ 25,000.00	3.1%
Training	\$ 2,500.00	\$ 1,000.00	\$ 1,000.00	\$ 4,500.00	0.6%
Consulting/system integration	\$ 30,000.00	\$ 18,000.00	\$ 10,000.00	\$ 58,000.00	7.3%
Other (Facilities)	\$ 15,000.00	\$ 3,500.00	\$ 3,500.00	\$ 22,000.00	2.8%
...	\$ -	\$ -	\$ -	\$ -	0.0%
...	\$ -	\$ -	\$ -	\$ -	0.0%
Total Development Costs	\$ 62,500.00	\$ 27,500.00	\$ 19,500.00	\$ 109,500.00	13.7%
Communication Fees					
Local Area Network	\$ 1,500.00	\$ 1,500.00	\$ 1,500.00	\$ 4,500.00	0.6%
Wide Area Network	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 18,000.00	2.3%
...	\$ -	\$ -	\$ -	\$ -	0.0%
...	\$ -	\$ -	\$ -	\$ -	0.0%
Total Communication Fees	\$ 7,500.00	\$ 7,500.00	\$ 7,500.00	\$ 22,500.00	2.8%
Total Direct Costs	\$ 284,220.00	\$ 202,680.00	\$ 198,558.00	\$ 685,458.00	85.8%
Indirect Costs					
End User IS					
Formal end-user training	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 9,000.00	1.1%
Informal end-user training	\$ 1,200.00	\$ 1,200.00	\$ 1,200.00	\$ 3,600.00	0.5%
Local file maintenance	\$ 9,000.00	\$ 9,000.00	\$ 9,000.00	\$ 27,000.00	3.4%
...	\$ -	\$ -	\$ -	\$ -	0.0%
...	\$ -	\$ -	\$ -	\$ -	0.0%
Total End User IS costs	\$ 13,200.00	\$ 13,200.00	\$ 13,200.00	\$ 39,600.00	5.0%
Downtime					
Planned downtime (2%)	\$ 15,000.00	\$ 16,500.00	\$ 18,000.00	\$ 49,500.00	6.2%
Unplanned downtime	\$ 7,500.00	\$ 8,250.00	\$ 9,000.00	\$ 24,750.00	3.1%
...	\$ -	\$ -	\$ -	\$ -	0.0%
...	\$ -	\$ -	\$ -	\$ -	0.0%
Total Downtime costs	\$ 22,500.00	\$ 24,750.00	\$ 27,000.00	\$ 74,250.00	9.3%
Total Indirect Costs	\$ 35,700.00	\$ 37,950.00	\$ 40,200.00	\$ 113,850.00	14.2%
Total Costs	\$ 319,920.00	\$ 240,630.00	\$ 238,758.00	\$ 799,308.00	