Total Cost of Ownership (TCO) Calculator

**Estimate the cost savings you can realize by migrating your workloads to Azure**

👤 agkogkidis@o365.uth.gr

Over 5 year(s) with Microsoft Azure, your estimated cost savings could be as much as $24,848

Total on-premises vs. Azure cost over time

Savings from running workloads in Azure accrue over time. The following shows how those savings add up over years.

On-premises cost ■ **Microsoft Azure cost**
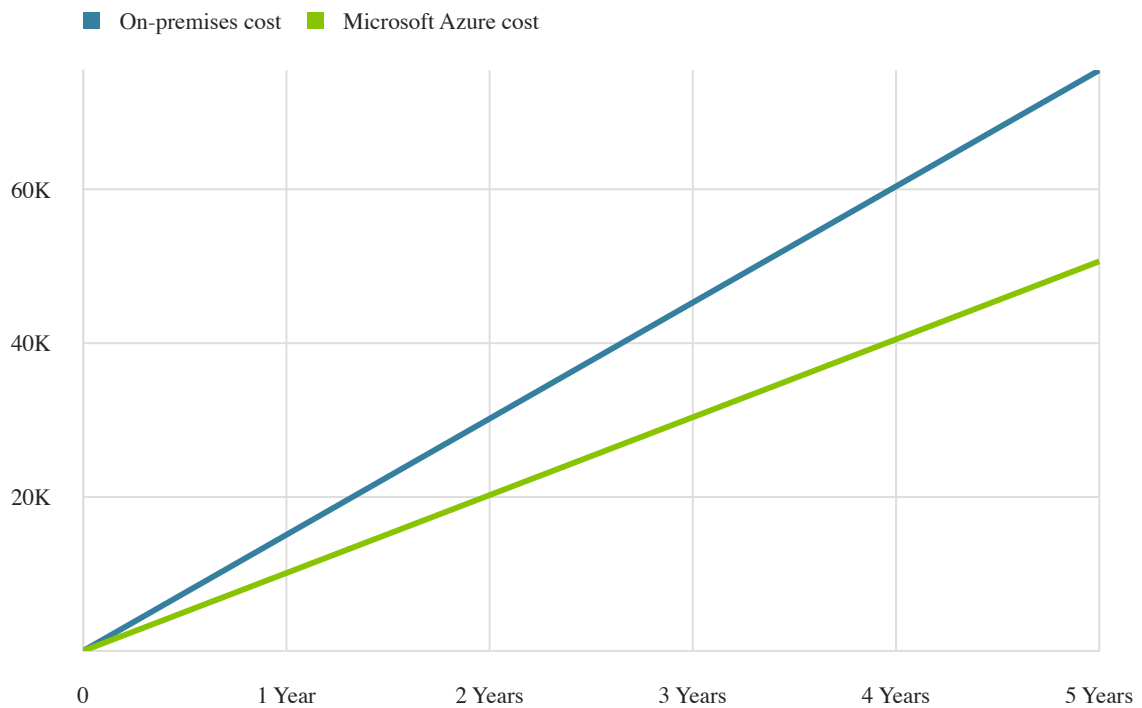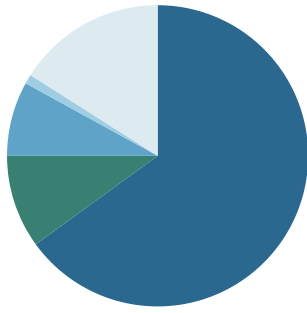
Total on-premises over 5 year(s)

TCO of on-premises environments tends to be driven by compute and data center costs.

Total Azure cost over 5 year(s)

In Azure, certain cost categories decrease or go away completely.

$75,475
Total cost

$50,627
Total cost

65% Compute | **10%** Data center | **8%** Networking | **1%** Storage | **16%** IT Labor
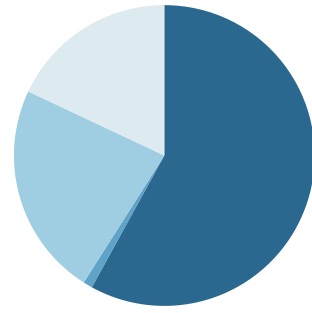
58% Compute | **0%** Data center | **1%** Networking | **23%** Storage | **18%** IT Labor

Total on-premises cost breakdown

In Azure, several of the cost categories from the on-premises environment are consolidated and decrease with the efficiency that comes with the cloud.

Total Azure cost breakdown

In Azure, several of the cost categories from the on-premises environment are consolidated and decrease with the efficiency that comes with the cloud.

$75,475
Cost over 5 year(s)

$50,627
Cost over 5 year(s)

On-premises cost breakdown summary

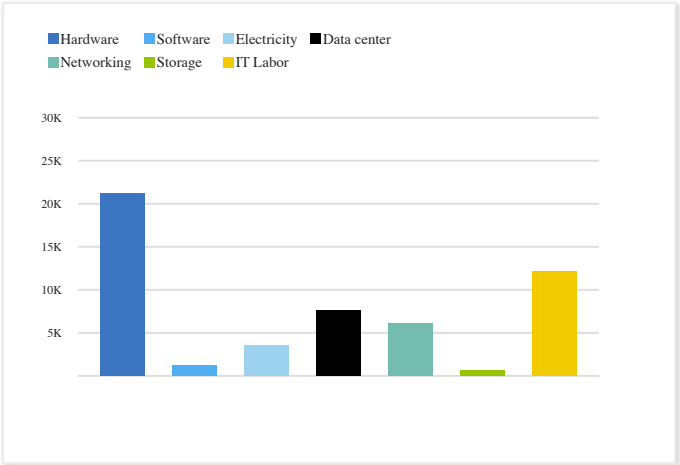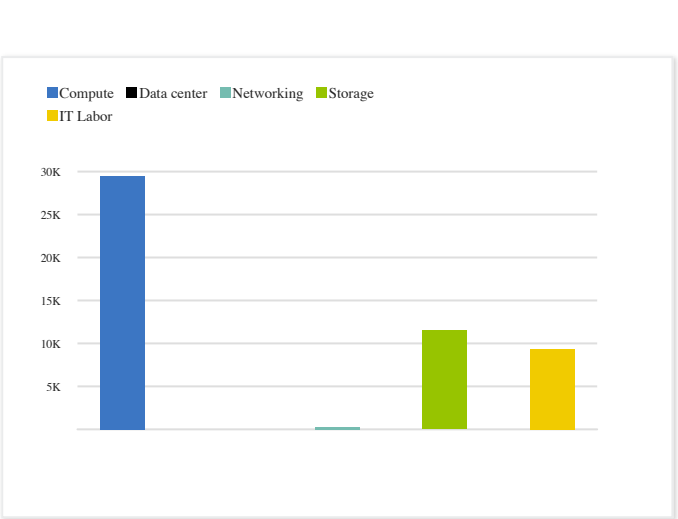## Azure cost breakdown summary

Category	Cost
Compute	$49,041.30

Category	Cost

Hardware	$21,198.00	Compute	$29,484.24
Software	$1,215.00	Data Center	$0.00
Electricity	$3,537.00		
Virtualization	$6,364.80	Networking	$294.00
Database	$16,726.50		
		Storage	$11,514.79
Data Center	$7,556.75		
		IT Labor	$9,333.80
Networking	$6,116.24		
Storage	$627.20		
IT Labor	$12,133.80		

Total	**$75,475.00**

Total	**$50,627.00**

Estimated on-premises cost (5 year(s))

Estimated Azure cost (5 year(s))

Compute cost

Hardware cost

Cost per 2 proc 4 core, 14 GB RAM physical server for Linux	$6,964.00
Number of servers required	1
Total cost for physical server(s)	$6,964.00
Cost of maintaining physical server(s) - 20% of cost of physical server(s)	$1,392.80
Virtual machine density - Number of virtual cores that can be created per physical core	3
Cost per 1 proc 4 core, 7 GB RAM virtualization server for Linux	$1,951.00
Number of servers needed for 3 virtual machine(s) - 4 core, 16 GB RAM	1
Cost per 1 proc 2 core, 3.5 GB RAM virtualization server for Windows	$1,684.00
Number of servers needed for 1 virtual machine(s) - 4 core, 16 GB RAM	1
Total cost for virtualization server(s)	$3,635.00
Cost of maintaining virtualization server(s) - 20% of cost of virtualization server(s)	$727.00
Total cost of maintaining server(s) over five year(s)	$10,599.00

Total hardware cost over five year(s)	**$21,198.00**

Software cost

Cost of Windows standard license per 1 proc, 2 core, 3.5 GB RAM virtualization server	$972.00

Azure compute cost

Virtual Machines cost

Number of hours per month	730
D4v3 Standard (4 core, 16 GB RAM) Linux	SKU# AAA-45013
Number of virtual machines	3
Total virtual machine cost per month	$244.608
F8sv2 Standard (8 core, 16 GB RAM) Linux	SKU# AAD-10188
Number of virtual machines	1
Total virtual machine cost per month	$126.666

Total Azure Virtual Machines cost	**$22,276.44**

NOTE: For Azure compute costs, 3 year Reserved VM and two 1 year Reserved VM in use.

SQL Database cost

General Purpose Single Gen5 2 vCores (Azure Hybrid Benefit)	$0.13972 /hr
	SKU#
Instance Count	1
Cost Per Month	$120.13

Total SQL Database cost over five year(s)	**$7,207.80**

Number of servers needed for 1 virtual machine(s) - 4 core, 16 GB RAM	1
Total software license cost	$972.00
Total Software Assurance cost	$243.00
Total software cost over five year(s)	**$1,215.00**

Electricity cost

Price of electricity per kWh	$0.125
Power rating of 4 core, 7 GB RAM server	166 Watts
Total electricity cost for 1 server(s) - 4 core, 7 GB RAM server per month	$15.15
Power rating of 4 core, 14 GB RAM server	324 Watts
Total electricity cost consumed by 1 server(s) - 4 core, 14 GB RAM server per month	$29.56
Power rating of 2 core, 3.5 GB RAM server	156 Watts
Total electricity cost for 1 server(s) - 2 core, 3.5 GB RAM server per month	$14.24
Total electricity cost over five year(s)	**$3,537.00**

Virtualization cost

Virtualization software license cost	$0.00
Per virtual machine, per month, cost to load balance, backup and patch virtual machines	$26.52
Number of virtual machines	5
Virtual machine management cost per month	$106.08
Virtual machine management cost per year	$1,272.96
Total virtualization cost over five year(s)	**$6,364.80**

SQL Database cost

Total CPU cores	4
SQL Server Standard License cost per 2 cores	$3,717.00
Standard cores	4
Total license cost	$7,434.00
Standard Software Assurance cost per 2 cores	$929.25
Standard cores	4
Total Software Assurance cost	$9,292.50
Total SQL Database cost over five year(s)	**$16,726.50**

NOTE: A minimum of four core licenses are required for each physical processor on the server or VM

Total cost over five year(s)	**$49,041.30**

Total Azure compute cost over five year(s)	**$29,484.24**

Data center cost

Azure data center cost

Compute cost

Number of rack units per rack	42	
		Total Azure data center cost over five year(s)
Rack units required per 4 core, 7 GB RAM server	1	
Number of 4 core, 7 GB RAM server	1	
Total number of rack units required	$1.00	
Rack units required per 4 core, 14 GB RAM server	2	
Number of 4 core, 14 GB RAM server	1	
Total number of rack units required	$2.00	
Rack units required per 2 core, 3.5 GB RAM server	1	
Number of 2 core, 3.5 GB RAM server	1	

Total Azure data center cost over five year(s) $0.00

Total number of rack units required	$1.00
Total number of rack units required for all server(s)	$4.00
Data center construction cost per rack unit amortized over 20 years	$302.27
Data center compute cost	$1,209.08
Total Data center compute cost over five year(s)	**$6,045.40**

Storage cost

Total number of rack units required for all storage	1
Number of rack units for NAS	1
Rack mounting/installation cost	$302.27
Total Data center storage cost over five year(s)	**$1,511.35**

Total Data center cost over five year(s)	**$7,556.75**		
		Total Azure data center cost over five year(s)	**$0.00**

Networking cost

Azure networking cost

Total hardware + software cost over five year(s)	$22,413.00		
Network hardware and software cost assumed to be 15% of hardware and software cost over five year(s)	$3,361.95	Total outgoing bandwidth needed per month	250 GB
Network maintenance cost assumed to be 15% of network hardware and software cost over five year(s)	$504.29	Total outgoing bandwidth cost per month	$4.90
Service provider cost/GB per month	$0.15		

Amount of bandwidth needed (GB) per month	250
Total service provider cost per month	$37.50

Total networking cost over five year(s)	**$6,116.24**

Total Azure networking cost over five year(s)	**$294.00**

Storage cost

Azure storage cost

Hardware

NAS/File Share

Cost per GB	$0.20
Storage (RAID 10 configuration) volume in GB	1,024

Total storage procurement cost	**$204.80**

File storage

Usable storage volume in GB	512
Storage cost per GB	$0.060
Annual storage cost per usable volume	$368.64

Total File storage LRS maintenance cost over five year(s)	**$1,843.20**

Backup

Total backup and archive volume in GB	7,168
	HP LTO-7 BB873A
Backup volume per tape in TB	6
Number of Tape drives required	2
Cost per Tape Drive	$160.00

Backup and Archive cost over five year(s)	**$320.00**

Backup

Total backup and archive volume in GB	7,168
Storage cost per GB	$0.0224
	SKU# AAL-31836

Backup and Archive maintenance cost over five year(s)	**$9,633.79**

Storage Maintenance

Storage maintenance cost (10% of storage procurement cost) over five year(s)	$102.40

SQL Database Server storage

Usable storage volume in GB	5
Price per GB/Month	$0.025

Total storage maintenance cost over five year(s)	**$102.40**

Active DB Storage Cost/Month	$0.126
Annual storage cost per usable volume	$7.56

Total SQL Database Server Storage cost over five year(s)	**$37.80**

SQL Database Backup storage

Billable backup storage volume in GB	0
Price per GB/Month	$0.00
Backup Storage Cost/Month	$0.220
Annual storage cost per usable volume	$0.00

Total SQL Database Backup Storage Cost over five year(s)	**$0.00**

Total storage cost over five year(s)	**$627.20**

Total Azure storage cost over five year(s)	**$11,514.79**

IT labor cost

Azure IT labor cost

Number of IT admin hour(s) needed per year	86.67
Hourly rate for IT administrator	$28.00

Number of IT admin hour(s) needed per year	66.67
Hourly rate for IT administrator	$28.00

Total IT labor cost over five year(s)	**$12,133.80**

Total Azure IT labor cost over five year(s)	**$9,333.80**

Total on-premises cost over five year(s) $75,475.00

Total Azure cost over five year(s) $50,627.00

A total **savings** of **$24,848.00** with **Microsoft Azure**