

# Total Cost of Ownership (TCO) Calculator

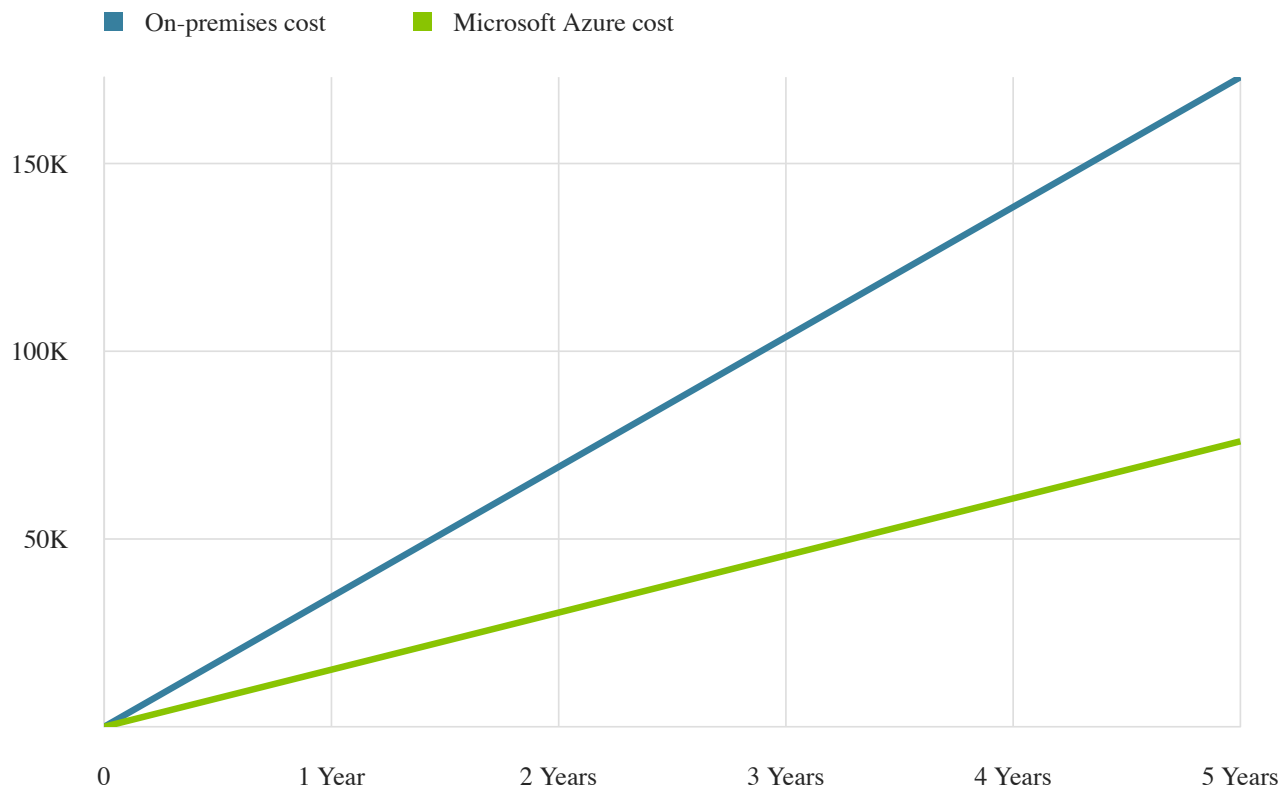
Estimate the cost savings you can realize by migrating your workloads to Azure

 My saved reports

Over 5 year(s) with Microsoft Azure, your estimated cost savings could be as much  
as **\$96,992**

## 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.



### Total on-premises over 5 year(s)

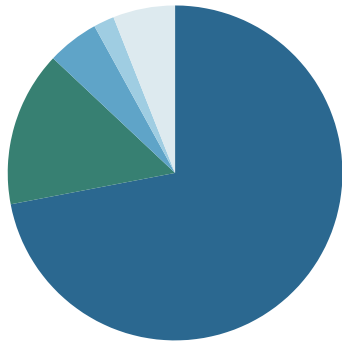
TCO of on-premises environments tends to be driven by compute and data center costs.

### Total Azure cost over 5 year(s)

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

**\$173,007**  
Total cost

**\$76,015**  
Total cost



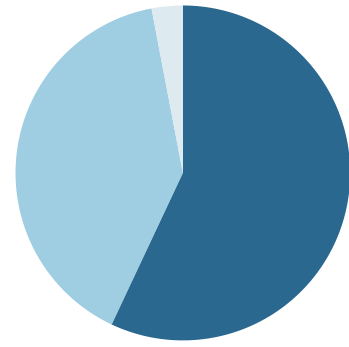
**72%**  
Compute

**15%**  
Data center

**5%**  
Networking

**2%**  
Storage

**6%**  
IT Labor



**57%**  
Compute

**0%**  
Data center

**0%**  
Networking

**40%**  
Storage

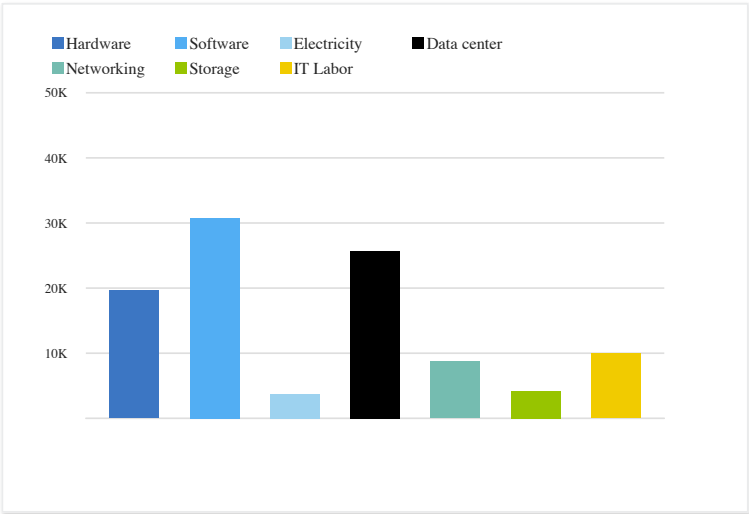
**3%**  
IT Labor

## Total on-premises cost breakdown

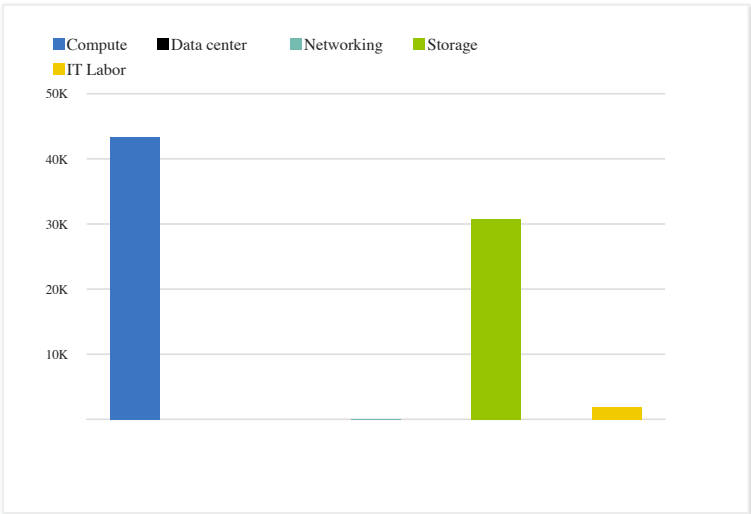
In Azure, several of the cost categories from the on-premises environment are consolidated and decrease with the efficiency that comes with the cloud.

## 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.



\$173,007  
Cost over 5 year(s)



\$76,015  
Cost over 5 year(s)

On-premises cost breakdown summary

Azure cost breakdown summary

Category	Cost
Compute	\$124,462.20
Hardware	\$19,604.00
Software	\$30,775.00
Electricity	\$3,746.40
Virtualization	\$6,364.80

Category	Cost
Compute	\$43,349.64

Chat with Sales

Database	\$63,972.00	Data Center	\$0.00
Data Center	\$25,692.95	Networking	\$1.20
Networking	\$8,708.38	Storage	\$30,746.76
Storage	\$4,176.00	IT Labor	\$1,917.05
IT Labor	\$9,967.05		
<b>Total</b>		<b>Total</b>	<b>\$76,015.00</b>

<b>Estimated on-premises cost (5 year(s))</b>		<b>Estimated Azure cost (5 year(s))</b>	
<b>Compute cost</b>		<b>Azure compute cost</b>	
<b>Hardware cost</b>		<b>Virtual Machines cost</b>	
Cost per 1 proc 4 core, 7 GB RAM physical server for Windows	\$1,951.00	Number of hours per month	730
Number of servers required	1	B4MS Standard (4 core, 16 GB RAM) Windows (Azure Hybrid Benefit)	SKU# AAA-68679
Total cost for physical server(s)	\$1,951.00	Number of virtual machines	1
Cost of maintaining physical server(s) - 20% of cost of physical server(s)	\$390.20	Total virtual machine cost per month	\$55.914
			<a href="#">= Chat with Sales</a>

Virtual machine density - Number of virtual cores that can be created per physical core	3
Cost per 2 proc 1 core, 4 GB RAM virtualization server for Windows	\$4,332.00
Number of servers needed for 2 virtual machine(s) - 2 core, 4 GB RAM	1
Cost per 1 proc 1 core, 0.75 GB RAM virtualization server for Windows	\$1,173.00
Number of servers needed for 1 virtual machine(s) - 4 core, 1 GB RAM	1
Cost per 1 proc 1 core, 0.75 GB RAM virtualization server for Windows	\$1,173.00
Number of servers needed for 1 virtual machine(s) - 3 core, 10 GB RAM	2
Total cost for virtualization server(s)	\$7,851.00
Cost of maintaining virtualization server(s) - 20% of cost of virtualization server(s)	\$1,570.20
Total cost of maintaining server(s) over five year(s)	\$9,802.00
<b>Total hardware cost over five year(s)</b>	<b>\$19,604.00</b>

### Software cost

Cost of Windows datacenter license per 1 proc, 4 core, 7 GB RAM physical machine	\$6,155.00
Number of licenses needed	1
Cost of Windows datacenter license per 2 proc, 1 core, 4 GB RAM virtualization server	\$6,155.00
Number of servers needed for 2 virtual machine(s) - 2 core, 4 GB RAM	1
Cost of Windows datacenter license per 1 proc, 1 core, 0.75 GB RAM virtualization server	\$6,155.00
Number of servers needed for 1 virtual machine(s) - 4 core, 1 GB RAM	1
Cost of Windows datacenter license per 1 proc, 1 core, 0.75 GB RAM virtualization server	\$6,155.00
Number of servers needed for 1 virtual machine(s) - 3 core, 10 GB RAM	1
Total software license cost	\$24,620.00
Total Software Assurance cost	\$6,155.00
<b>Total software cost over five year(s)</b>	<b>\$30,775.00</b>

### Electricity cost

Price of electricity per kWh	\$0.1334
Power rating of 4 core, 7 GB RAM server	166 Watts
Total electricity cost consumed by 1 server(s) - 4 core, 7 GB RAM server per month	\$16.17
Power rating of 1 core, 4 GB RAM server	160 Watts
Total electricity cost for 1 server(s) - 1 core, 4 GB RAM server per month	\$15.58

**Total Azure Virtual Machines cost** **\$3,354.84**

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

### App Service cost

B2 Basic App Service (2 core, 3.5 GB RAM)	\$0.15 /hr
SKU# T2X-00018	
Full time App Service instances	2
Average utilization	80 %
Auto scaling	No
Total App Service cost per month	\$175.20

**Total App Service cost over five year(s)** **\$10,512.00**

### SQL Database cost

General Purpose Single Gen5 4 vCores (Azure Hybrid Benefit)	\$0.27396 /hr
SKU# AAD-17850	
Instance Count	1
Cost Per Month	\$235.59

**Total SQL Database cost over five year(s)** **\$14,135.40**

### Azure Database for MySQL cost

Azure Database for MySQL - GeneralPurpose G5, 4 vCore(s)	\$0.3504 /hr
SKU# AAA-90574	
Instance Count	1
Cost Per Month	\$255.79

**Total Azure Database for MySQL cost over five year(s)** **\$15,347.40**

Power rating of 1 core, 0.75 GB RAM server	105 Watts
Total electricity cost for 1 server(s) - 1 core, 0.75 GB RAM server per month	\$10.23
Power rating of 1 core, 0.75 GB RAM server	105 Watts
Total electricity cost for 2 server(s) - 1 core, 0.75 GB RAM server per month	\$20.46
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<b>Total electricity cost over five year(s)</b>	<b>\$3,746.40</b>

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	4
Virtual machine management cost per month	\$106.08
Virtual machine management cost per year	\$1,272.96
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<b>Total virtualization cost over five year(s)</b>	<b>\$6,364.80</b>

SQL Database cost

Total CPU cores	4
SQL Server Enterprise License cost per 2 cores	\$14,256.00
Enterprise cores	4
Total license cost	\$28,512.00
Enterprise Software Assurance cost per 2 cores	\$3,546.00
Enterprise cores	4
Total Software Assurance cost	\$35,460.00
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<b>Total SQL Database cost over five year(s)</b>	<b>\$63,972.00</b>

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

MySQL Database cost

Total number of license(s) required	2
MySQL Community Edition License cost per instance	\$0.00
Total license cost	\$0.00
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<b>Total MySQL Database licensing cost over five year(s)</b>	<b>\$0.00</b>

Total cost of ownership over five years: \$74,183.20

Total cost over five year(s)		\$124,462.20	
		Total Azure compute cost over five year(s)	\$43,349.64
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)	\$0.00
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		
Rack units required per 1 core, 4 GB RAM server	1		
Number of 1 core, 4 GB RAM server	1		
Total number of rack units required	1		
Rack units required per 1 core, 0.75 GB RAM server	1		
Number of 1 core, 0.75 GB RAM server	1		
Total number of rack units required	1		
Rack units required per 1 core, 0.75 GB RAM server	1		
Number of 1 core, 0.75 GB RAM server	2		
Total number of rack units required	2		
Total number of rack units required for all server(s)	5		
Data center construction cost per rack unit amortized over 20 years	\$302.27		
Data center compute cost	\$1,511.35		
Total Data center compute cost over five year(s)	\$7,556.75		
Storage cost			
Total number of rack units required for all storage	12		
Number of rack units for DAS or SAN	12		
Rack mounting/installation cost	\$3,627.24		
Total Data center storage cost over five year(s)	\$18,136.20		
Total Data center cost over five year(s)	\$25,692.95		



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

### Azure networking cost

Total hardware + software cost over five year(s)	\$50,379.00
Network hardware and software cost assumed to be 15% of hardware and software cost over five year(s)	\$7,556.85
Network maintenance cost assumed to be 15% of network hardware and software cost over five year(s)	\$1,133.53
Service provider cost/GB per month	\$0.15
Amount of bandwidth needed (GB) per month	2
Total service provider cost per month	\$0.30

Total outgoing bandwidth needed per month	2 GB
Total outgoing bandwidth cost per month	\$0.02

Total networking cost over five year(s)	\$8,708.38
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Total Azure networking cost over five year(s)	\$1.20
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## Storage cost

### Azure storage cost

### Hardware

Local Disk/SAN-HDD	
Cost per GB	\$0.20
Storage (RAID 10 configuration) volume in GB	12,320
Total storage procurement cost	\$2,464.00

### Backup

Total backup and archive volume in GB	10,590
HP LTO-7 BB873A	
Backup volume per tape in TB	6
Number of Tape drives required	3
Cost per Tape Drive	\$160.00

### Page Blob storage

Usable storage volume in GB	4,096
Storage cost per GB/month	\$0.045
Annual storage cost per usable volume	\$2,211.84

Total Page Blob LRS storage maintenance cost over five year(s)	\$11,059.20
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### Backup

Total backup and archive volume in GB	10,240
Storage cost per GB	\$0.0224

Backup and Archive cost over five year(s) \$480.00

Storage Maintenance

Storage maintenance cost (10% of storage procurement cost) over five year(s) \$1,232.00

Total storage maintenance cost over five year(s) \$1,232.00

Backup and Archive maintenance cost over five year(s) \$13,762.56

SQL Database Server storage

Usable storage volume in GB 250  
Price per GB/Month \$0.00  
Active DB Storage Cost/Month \$0.115

Annual storage cost per usable volume \$345.00

Total SQL Database Server Storage cost over five year(s) \$1,725.00

SQL Database Backup storage

Billable backup storage volume in GB 350  
Price per GB/Month \$0.001  
Backup Storage Cost/Month \$0.20

Annual storage cost per usable volume \$840.00

Total SQL Database Backup Storage Cost over five year(s) \$4,200.00

Total storage cost over five year(s) \$4,176.00

Total Azure storage cost over five year(s) \$30,746.76

IT labor cost

Azure IT labor cost

Number of IT admin hour(s) needed per year 86.67  
Hourly rate for IT administrator \$23.00

Number of IT admin hour(s) needed per year 16.67  
Hourly rate for IT administrator \$23.00

Total IT labor cost over five year(s) \$9,967.05

Total Azure IT labor cost over five year(s) \$1,917.05

Total on-premises cost over five year(s) \$173,007.00

Total Azure cost over five year(s) \$76,015.00

A total **savings** of **\$96,992.00** with **Microsoft Azure**