



# Total Cost of Ownership (TCO) Calculator

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

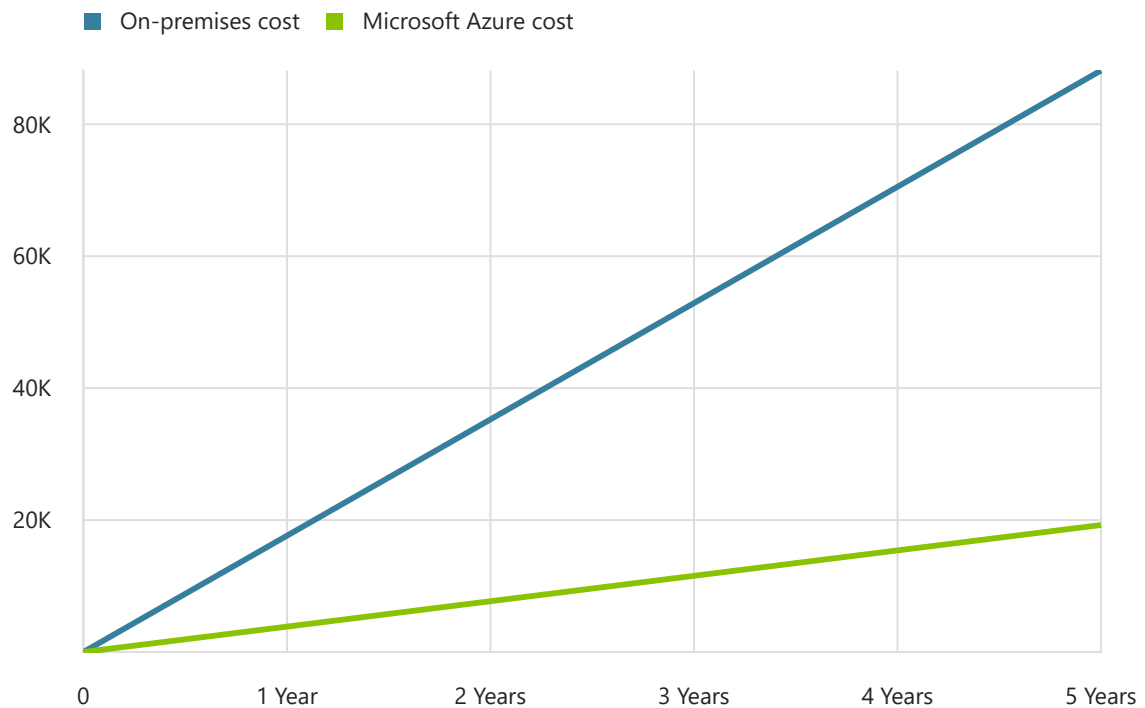
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Over 5 year(s) with Microsoft Azure, your estimated cost savings  
could be as much as **\$68,901**

## 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)

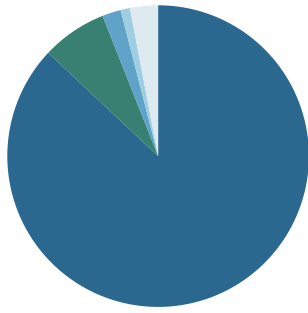
TCO of on-premises environments tends to be driven by compute and data center costs.

**\$88,153**  
Total cost

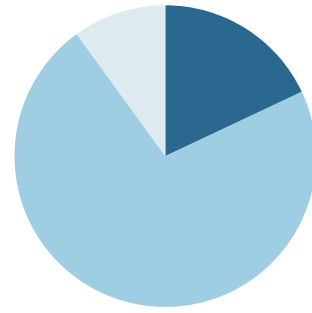
### Total Azure cost over 5 year(s)

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

**\$19,252**  
Total cost



<b>87%</b>	<b>7%</b>	<b>2%</b>	<b>1%</b>	<b>3%</b>
Compute	Data center	Networking	Storage	IT Labor



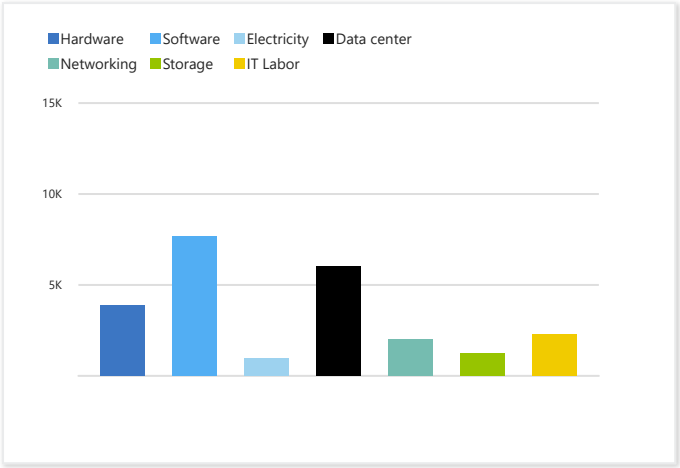
<b>18%</b>	<b>0%</b>	<b>0%</b>	<b>72%</b>	<b>10%</b>
Compute	Data center	Networking	Storage	IT Labor

## Total on-premises cost breakdown

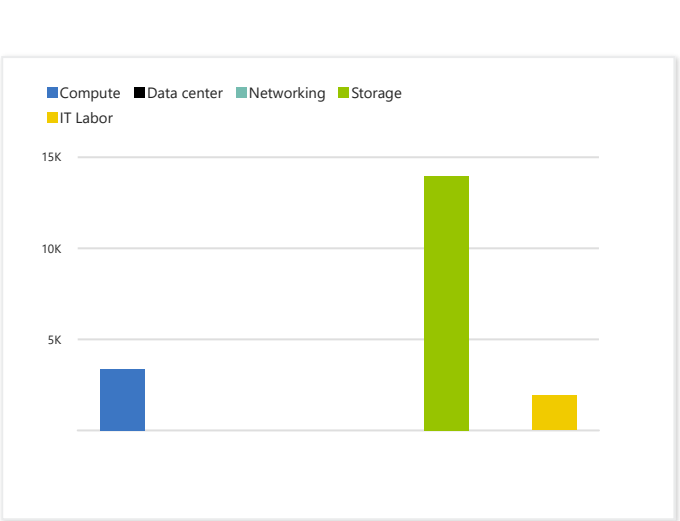
In Azure, several of the cost categories from the on-premises environment are consolidated and decrease with the efficiency that comes with the cloud.

## 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.



**\$88,153**  
Cost over 5 year(s)



**\$19,252**  
Cost over 5 year(s)

On-premises cost breakdown  
summary

Azure cost breakdown summary

Category	Cost
Compute	\$76,537.95

Category	Cost
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Hardware	\$3,902.00
Software	\$7,693.75
Electricity	\$970.20
Database	\$63,972.00
Data Center	\$6,045.40
Networking	\$2,009.26
Storage	\$1,260.80
IT Labor	\$2,300.00

Compute	\$3,384.00
Data Center	\$0.00
Networking	\$0.00
Storage	\$13,950.46
IT Labor	\$1,917.05

Total	\$88,153.00	Total	\$19,252.00
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Estimated on-premises cost (5 year(s))

Estimated Azure cost (5 year(s))

Compute cost

## Azure compute cost

### Hardware cost

Cost per 1 proc 4 core, 7 GB RAM physical server for Windows	\$1,951.00
Number of servers required	1
Total cost for physical server(s)	\$1,951.00
Cost of maintaining physical server(s) - 20% of cost of physical server(s)	\$390.20
Total cost of maintaining server(s) over five year(s)	\$1,951.00
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<b>Total hardware cost over five year(s)</b>	<b>\$3,902.00</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
Total software license cost	\$6,155.00
Total Software Assurance cost	\$1,538.75
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<b>Total software cost over five year(s)</b>	<b>\$7,693.75</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

### SQL Server VM Cost

Number of hours per month	730
F4sv2 Standard (4 core, 8 GB RAM) Windows, SQL Server Enterprise (Azure Hybrid Benefit)	SKU# N7H-06283
Number of virtual machines	1
Total virtual machine cost per month	\$56.40
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<b>Total SQL Server VM cost over five year(s)</b>	<b>\$3,384.00</b>

Total electricity cost over five year(s)	\$970.20
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### 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

Total SQL Server VM cost over five year(s)	\$63,972.00
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NOTE: A minimum of four core licenses are required for each physical processor on the server or VM

Total cost over five year(s)	\$76,537.95
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Total Azure compute cost over five year(s)	\$3,384.00
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### Data center cost

### Azure data center cost

### Compute cost

Number of rack units per rack	42
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
Total number of rack units required for all server(s)	\$1.00
Data center construction cost per rack unit amortized over 20 years	\$302.27

Total Azure data center cost over five year(s)	\$0.00
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Data center compute cost	\$302.27
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<b>Total Data center compute cost over five year(s)</b>	<b>\$1,511.35</b>
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### Storage cost

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Total number of rack units required for all storage	3
Number of rack units for DAS or SAN	3

Rack mounting/installation cost	\$906.81
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<b>Total Data center storage cost over five year(s)</b>	<b>\$4,534.05</b>
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<b>Total Data center cost over five year(s)</b>	<b>\$6,045.40</b>
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<b>Total Azure data center cost over five year(s)</b>	<b>\$0.00</b>
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### Networking cost

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### Azure networking cost

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Total hardware + software cost over five year(s)	\$11,595.75
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Network hardware and software cost assumed to be 15% of hardware and software cost over five year(s)	\$1,739.36
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Network maintenance cost assumed to be 15% of network hardware and software cost over five year(s)	\$260.90
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Service provider cost/GB per month	\$0.15
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Amount of bandwidth needed (GB) per month	1
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Total service provider cost per month	\$0.15
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Total outgoing bandwidth needed per month	1 GB
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Total outgoing bandwidth cost per month	\$0.00
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year(s)	~	\$2,009.20	Total Azure networking cost over five year(s)	\$0.00
Storage cost			Azure storage cost	
Hardware			Page Blob storage	
Local Disk/SAN-SSD			Usable storage volume in GB	1,536
Cost per GB	\$0.40		Storage cost per GB/month	\$0.045
Storage (RAID 10 configuration) volume in GB	32		Annual storage cost per usable volume	\$829.44
Local Disk/SAN-HDD			Total Page Blob LRS storage maintenance cost over five year(s)	\$4,147.20
Cost per GB	\$0.20			
Storage (RAID 10 configuration) volume in GB	3,072			
Total storage procurement cost	\$627.20			
Backup			Backup	
Total backup and archive volume in GB	1,056		Total backup and archive volume in GB	1,024
	HP LTO-7 BB873A		Storage cost per GB	\$0.0224
Backup volume per tape in TB	6			SKU# AAL-31949
Number of Tape drives required	2		Backup and Archive maintenance cost over five year(s)	\$1,376.26
Cost per Tape Drive	\$160.00			
Backup and Archive cost over five year(s)	\$320.00			
Storage Maintenance			SQL Server VM storage cost	
Storage maintenance cost (10% of storage procurement cost) over five year(s)	\$313.60		Usable storage volume in GB	32
Total storage maintenance cost over five year(s)	\$313.60		Azure disk match	P4
			Total IOPS	120
			Number of disks	1
			Disk price per month	\$5.28
			Usable storage volume in GB	1,024
			Azure disk match	P30
			Total IOPS	5,000
			Number of disks	1
			Disk price per month	\$135.17

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Total Sql Server VM Storage cost over five year(s)	\$8,427.00
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Total storage cost over five year(s)	\$1,260.80
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Total Azure storage cost over five year(s)	\$13,950.46
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## IT labor cost

## Azure IT labor cost

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Number of IT admin hour(s) needed per year	20
Hourly rate for IT administrator	\$23.00

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

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Total IT labor cost over five year(s)	\$2,300.00
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Total Azure IT labor cost over five year(s)	\$1,917.05
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Total on-premises cost over five year(s)	\$88,153.00
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Total Azure cost over five year(s)	\$19,252.00
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A total <b>savings</b> of <b>\$68,901.00</b> with <b>Microsoft Azure</b>
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