Total Cost of Ownership (TCO) Calculator

Estimate the cost savings you can realise by migrating your workloads to Azure
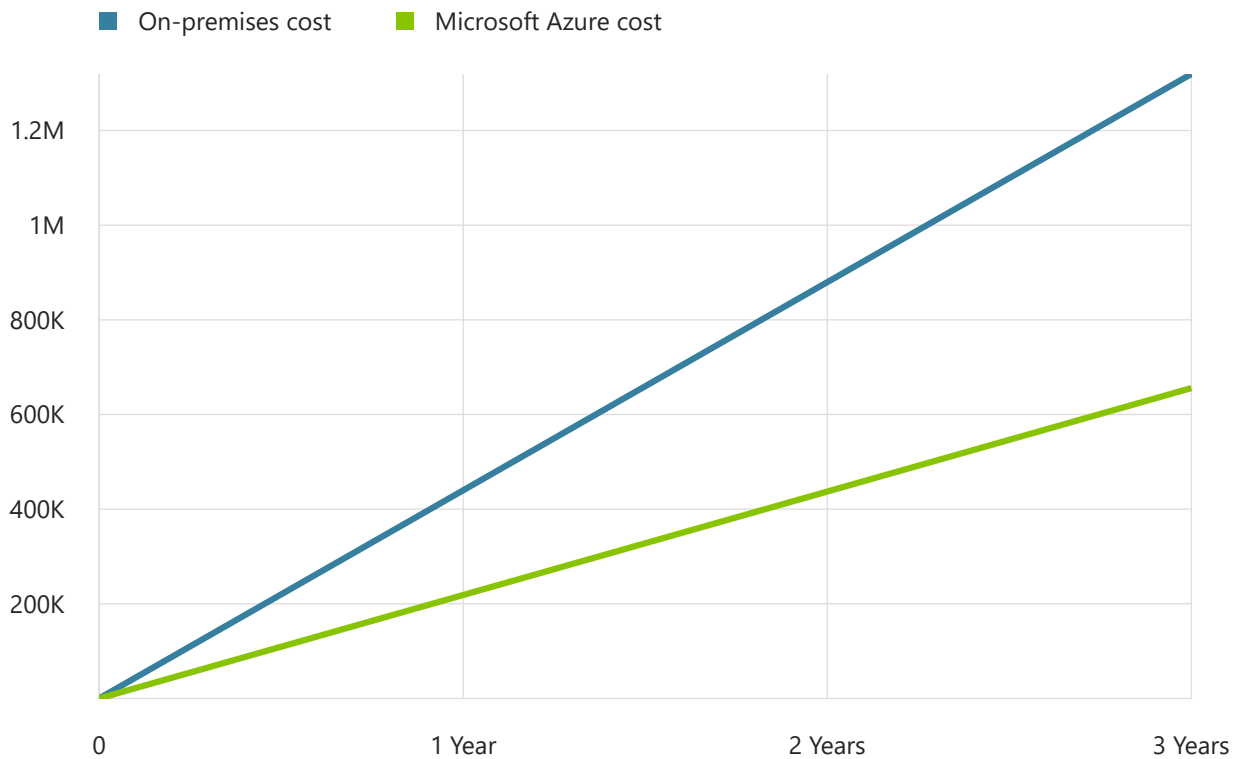
Over 3 year(s) with Microsoft Azure, your estimated cost savings could be as much as US$663,656
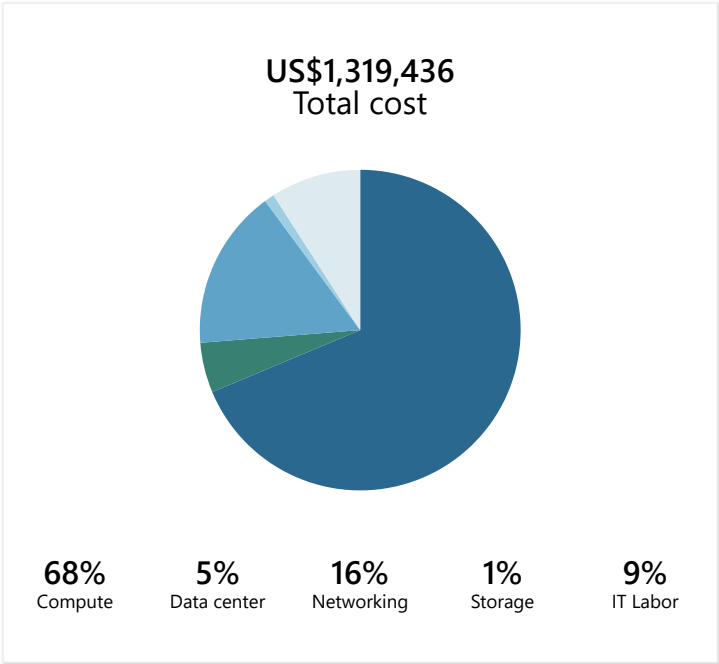
Total on-premises vs. Azure cost over time

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

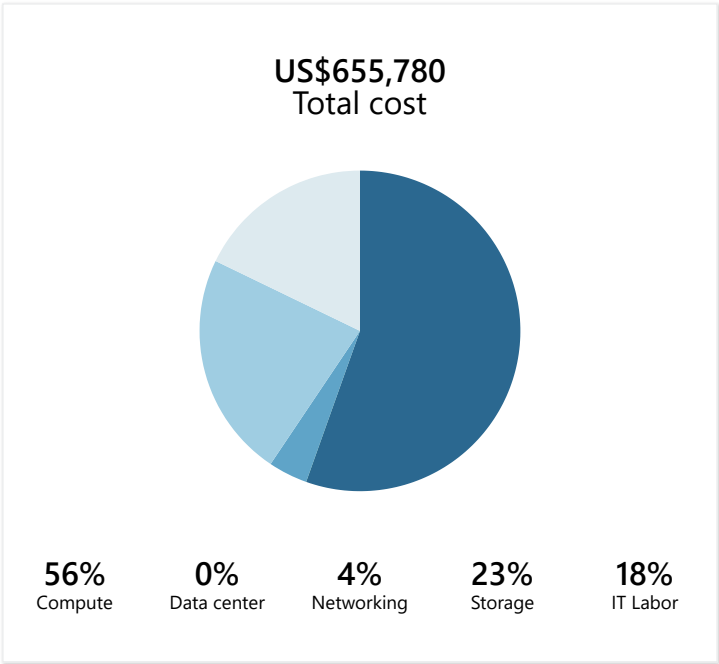■ On-premises cost   ■ Microsoft Azure cost

Chat with Sales

Total on-premises over 3 year(s)

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

Total Azure cost over 3 year(s)

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

US$1,319,436
Total cost

68%	5%	16%	1%	9%
Compute	Data center	Networking	Storage	IT Labor

US$655,780
Total cost

56%	0%	4%	23%	18%
Compute	Data center	Networking	Storage	IT Labor

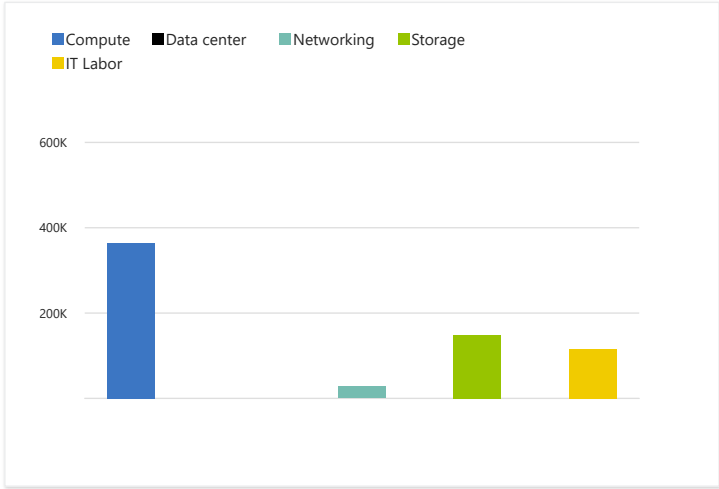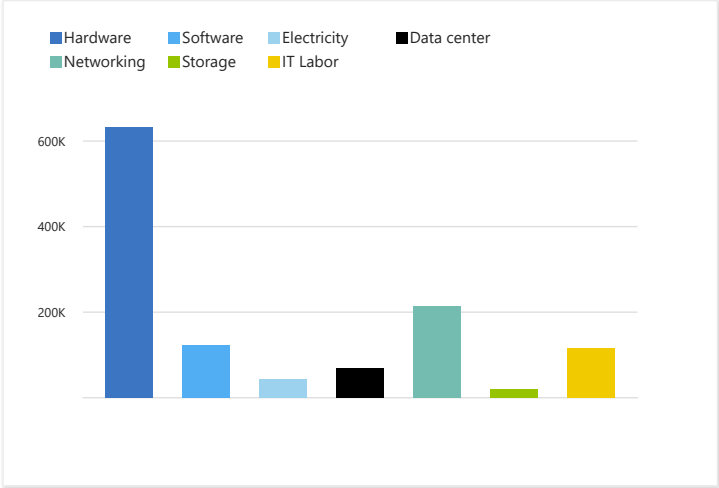## Total on-premises cost breakdown

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.

US$1,319,436
Cost over 3 year(s)

US$655,780
Cost over 3 year(s)

On-premises cost breakdown summary

Azure cost breakdown summary

Category	Cost
Compute	US$903,106.08
Hardware	US$632,224.00
Software	US$123,100.00
Electricity	US$42,166.08
Virtualization	US$105,616.00
Data Center	US$68,917.56
Networking	US$213,237.39
Storage	US$19,174.40

Category	Cost
Compute	US$364,284.00
Data Center	US$0.00
Networking	US$27,639.00
Storage	US$148,856.83

IT Labor	US$115,000.23

IT Labor	US$115,000.23

Total	**US$1,319,436.00**

Total	**US$655,780.00**

Estimated on-premises cost (3 year(s))

Estimated Azure cost (3 year(s))

Compute cost

Azure compute cost

Hardware cost

Virtual machine density - Number of virtual cores that can be created per physical core	3
Cost per 4 proc 32 core, 2000 GB RAM virtualization server for Windows	US$98,785.00
Number of servers needed for 50 virtual machine(s) - 8 core, 16 GB RAM	2
Cost per 4 proc 32 core, 2000 GB RAM virtualization server for Linux	US$98,785.00
Number of servers needed for 50 virtual machine(s) - 8 core, 16 GB RAM	2
Total cost for virtualization server(s)	US$395,140.00
Cost of maintaining virtualization server(s) - 20% of cost of virtualization server(s)	US$79,028.00
Total cost of maintaining server(s) over three year(s)	US$237,084.00

Total hardware cost over three year(s)	**US$632,224.00**

Software cost

Virtual Machines cost

Number of hours per month	730
F8sv2 Standard (8 core, 16 GB RAM) Windows (Azure Hybrid Benefit)	SKU# AAD-10155
Number of virtual machines	50
Total virtual machine cost per month	US$5,059.50
F8sv2 Standard (8 core, 16 GB RAM) Linux	SKU# AAD-10188
Number of virtual machines	50
Total virtual machine cost per month	US$5,059.50

Total Azure Virtual Machines cost	**US$364,284.00**

NOTE: For Azure compute costs, one 3 year Reserved VM in use.

Cost of Windows datacenter license per 4 proc, 32 core, 2000 GB RAM virtualization server	US$49,240.00
Number of servers needed for 50 virtual machine(s) - 8 core, 16 GB RAM	2
Total software license cost	US$98,480.00
Total Software Assurance cost	US$24,620.00
Total software cost over three year(s)	**US$123,100.00**

Electricity cost

Price of electricity per kWh	US$0.1334
Power rating of 32 core, 2000 GB RAM server	3,006.9 Watts
Total electricity cost for 2 server(s) - 32 core, 2000 GB RAM server per month	US$585.64
Power rating of 32 core, 2000 GB RAM server	3,006.9 Watts
Total electricity cost for 2 server(s) - 32 core, 2000 GB RAM server per month	US$585.64
Total electricity cost over three year(s)	**US$42,166.08**

Virtualization cost

Virtualization software license cost	US$10,144.00
Per virtual machine, per month, cost to load balance, backup and patch virtual machines	US$26.52
Number of virtual machines	100
Virtual machine management cost per month	US$2,652.00
Virtual machine management cost per year	US$31,824.00
Total virtualization cost over three year(s)	**US$105,616.00**

Total cost over three year(s)	**US$903,106.08**

Total Azure compute cost over three year(s)	**US$364,284.00**

Data center cost

Azure data center cost

Compute cost

Number of rack units per rack		42
Rack units required per 32 core, 2000 GB RAM server		4
Number of 32 core, 2000 GB RAM server		2
Total number of rack units required		US$8.00
Rack units required per 32 core, 2000 GB RAM server		4
Number of 32 core, 2000 GB RAM server		2
Total number of rack units required		US$8.00
Total number of rack units required for all server(s)		US$16.00
Data center construction cost per rack unit amortized over 20 years		US$302.27

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

Data center compute cost	US$4,836.32
Total Data center compute cost over three year(s)	**US$14,508.96**

Storage cost

Total number of rack units required for all storage	60
Number of rack units for DAS or SAN	60
Rack mounting/installation cost	US$18,136.20
Total Data center storage cost over three year(s)	**US$54,408.60**

Total Data center cost over three year(s)	**US$68,917.56**

Total Azure data center cost over three year(s)	**US$0.00**

Networking cost

Azure networking cost

Total hardware + software cost over three year(s)	US$755,324.00
Network hardware and software cost assumed to be 15% of hardware and software cost over three year(s)	US$113,298.60
Network maintenance cost assumed to be 15% of network hardware and software cost over three year(s)	US$16,994.79
Service provider cost/GB per month	US$0.15
Amount of bandwidth needed (GB) per month	15,360
Total service provider cost per month	US$2,304.00

Total outgoing bandwidth needed per month	15 TB
Total outgoing bandwidth cost per month	US$767.75

Total networking cost over three year(s)	**US$213,237.39**

Total Azure networking cost over three year(s)	**US$27,639.00**

Storage cost

Azure storage cost

Hardware

Local Disk/SAN-HDD	
Cost per GB	US$0.20
Storage (RAID 10 configuration) volume in GB	61,440
Total storage procurement cost	**US$12,288.00**

Page Blob storage

Usable storage volume in GB	30,720
Storage cost per GB/month	US$0.045

Backup

Total backup and archive volume in GB	122,880
	HP LTO-7
	BB873A
Backup volume per tape in TB	6
Number of Tape drives required	20
Cost per Tape Drive	US$160.00
Backup and Archive cost over three year(s)	**US$3,200.00**

Storage Maintenance

Storage maintenance cost (10% of storage procurement cost) over three year(s)	US$3,686.40
Total storage maintenance cost over three year(s)	**US$3,686.40**

Total storage cost over three year(s)	**US$19,174.40**

Annual storage cost per usable volume	US$16,588.80
Total Page Blob LRS storage maintenance cost over three year(s)	**US$49,766.40**

Backup

Total backup and archive volume in GB	122,880
Storage cost per GB	US$0.0224
	SKU# AAL-31836
Backup and Archive maintenance cost over three year(s)	**US$99,090.43**

Total Azure storage cost over three year(s)	**US$148,856.83**

IT labor cost

Number of IT admin hour(s) needed per year	1,666.67
Hourly rate for IT administrator	US$23.00
Total IT labor cost over three year(s)	**US$115,000.23**

Azure IT labor cost

Number of IT admin hour(s) needed per year	1,666.67
Hourly rate for IT administrator	US$23.00
Total Azure IT labor cost over three year(s)	**US$115,000.23**

Total on-premises cost over three year(s)	**US$1,319,436.00**

Total Azure cost over three year(s)	**US$655,780.00**

A total **savings** of **US$663,656.00** with **Microsoft Azure**