Total Cost of Ownership (TCO) Calculator

Estimate the cost savings you can realize by migrating your workloads to Azure
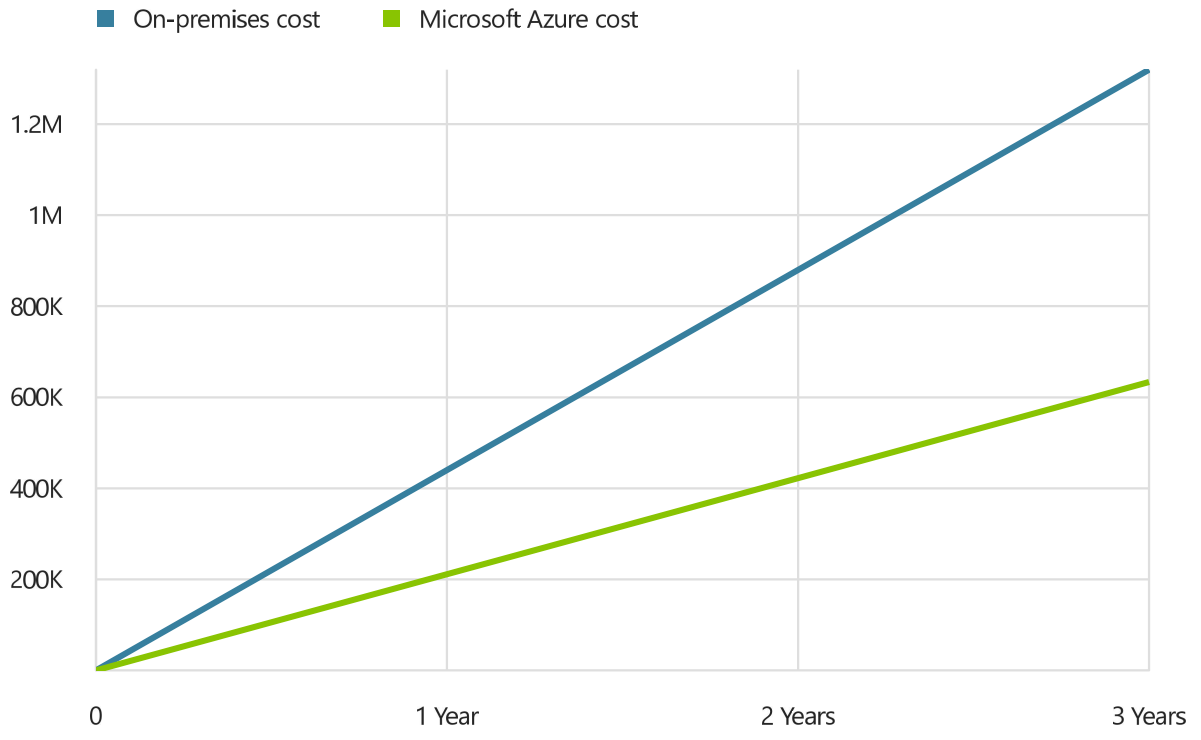
Over 3 year(s) with Microsoft Azure, your estimated cost savings could be as much as $685,765

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.

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Legend: On-premises cost, Microsoft Azure cost

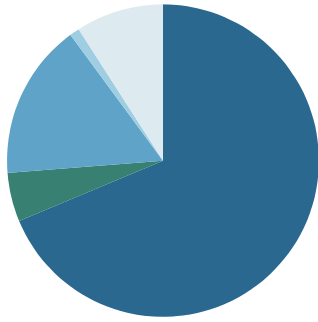## Total on-premises over 3 year(s)

TCO of on-premises environments tends to be driven by compute and data center costs.
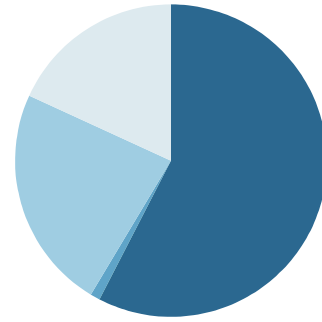
Total Azure cost over 3 year(s)

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

$1,319,436
Total cost

$633,671
Total cost

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

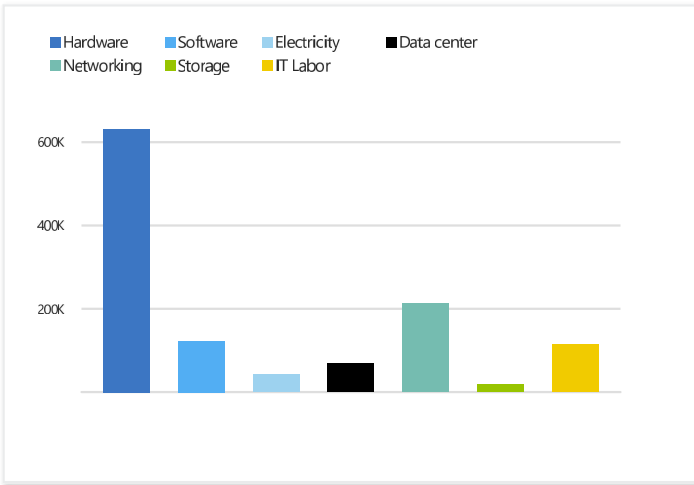| 57%	0%	1%	23%	18%
Compute	Data center	Networking	Storage	IT Labor

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.

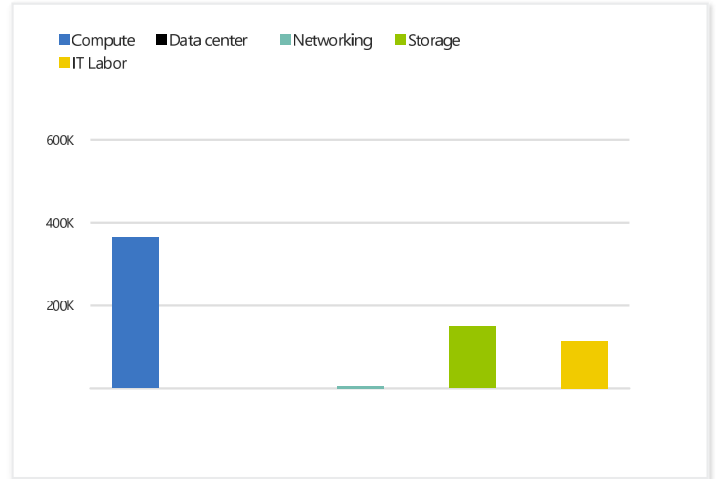## Total Azure cost breakdown

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

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Legend: Hardware, Software, Electricity, Data center, Networking, Storage, IT Labor

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

Legend: Compute, Data center, Networking, Storage, IT Labor

$633,671
Cost over 3 year(s)

On-premises cost breakdown summary

Azure cost breakdown summary

Category	Cost
Compute	$903,106.08
Hardware	$632,224.00
Software	$123,100.00
Electricity	$42,166.08
Virtualization	$105,616.00
Data Center	$68,917.56
Networking	$213,237.39
Storage	$19,174.40
IT Labor	$115,000.23
Total	**$1,319,436.00**

Category	Cost
Compute	$364,284.00
Data Center	$0.00
Networking	$5,529.60
Storage	$148,856.83
IT Labor	$115,000.23
Total	**$633,671.00**

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

Estimated Azure cost (3 year(s))

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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	$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	$98,785.00
Number of servers needed for 50 virtual machine(s) - 8 core, 16 GB RAM	2
Total cost for virtualization server(s)	$395,140.00
Cost of maintaining virtualization server(s) - 20% of cost of virtualization server(s)	$79,028.00
Total cost of maintaining server(s) over three year(s)	$237,084.00

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

Software cost

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

Azure compute 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	$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	$5,059.50

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

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

Total software cost over three year(s)	$123,100.00

Electricity cost

Price of electricity per kWh	$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	$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	$585.64

Total electricity cost over three year(s)	$42,166.08

Virtualization cost

Virtualization software license cost	$10,144.00
Per virtual machine, per month, cost to load balance, backup and patch virtual machines	$26.52
Number of virtual machines	100
Virtual machine management cost per month	$2,652.00
Virtual machine management cost per year	$31,824.00

Total virtualization cost over three year(s)	$105,616.00

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

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

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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	8
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	8
Total number of rack units required for all server(s)	16
Data center construction cost per rack unit amortized over 20 years	$302.27
Data center compute cost	$4,836.32
Total Data center compute cost over three year(s)	**$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	$18,136.20
Total Data center storage cost over three year(s)	**$54,408.60**

Total Data center cost over three

Azure data center cost

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

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

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

Networking cost

Azure networking cost

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

Total outgoing bandwidth needed per month	15 TB
Total outgoing bandwidth cost per month	$153.60

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

Total Azure networking cost over three year(s)	$5,529.60

Storage cost

Azure storage cost

Hardware

Page Blob storage

Local Disk/SAN-HDD

Cost per GB	$0.20
Storage (RAID 10 configuration) volume in GB	61,440

Usable storage volume in GB	30,720
Storage cost per GB/month	$0.045
Annual storage cost per usable volume	= Chat with Sales $16,588.80

Total storage procurement cost	$12,288.00

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	$160.00
Backup and Archive cost over three year(s)	$3,200.00

Storage Maintenance

Storage maintenance cost (10% of storage procurement cost) over three year(s)	$3,686.40
Total storage maintenance cost over three year(s)	$3,686.40
Total storage cost over three year(s)	$19,174.40

IT labor cost

Number of IT admin hour(s) needed per year	1,666.67
Hourly rate for IT administrator	$23.00

Total Page Blob LRS storage maintenance cost over three year(s)	$49,766.40

Backup

Total backup and archive volume in GB	122,880
Storage cost per GB	$0.0224
	SKU# AAA-70203
Backup and Archive maintenance cost over three year(s)	$99,090.43

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

Azure IT labor cost

Number of IT admin hour(s) needed per year	1,666.67
Hourly rate for IT administrator	$23.00

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Total IT labor cost over three year(s) $115,000.23

Total Azure IT labor cost over three year(s) $115,000.23

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

Total Azure cost over three year(s) $633,671.00

A total **savings** of **$685,765.00** with **Microsoft Azure**