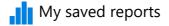
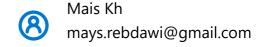
# Total Cost of Ownership (TCO) Calculator

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

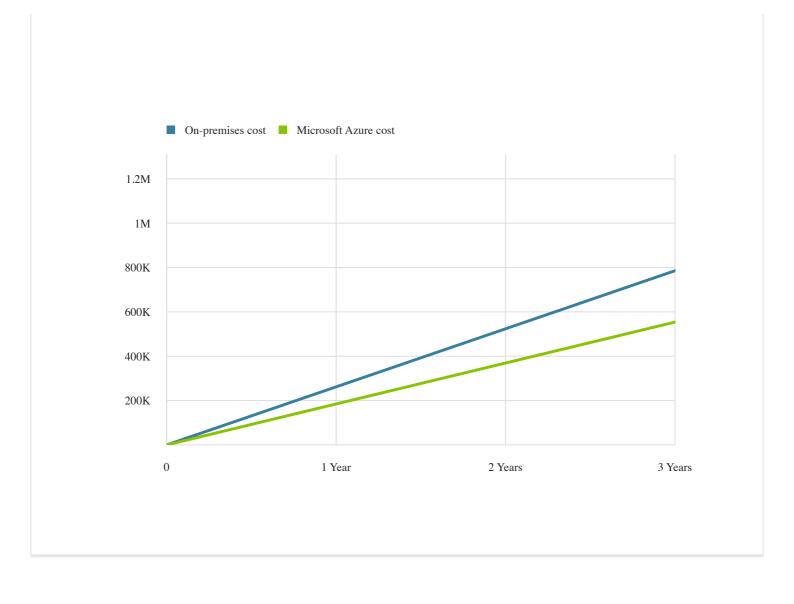




# Over 3 year(s) with Microsoft Azure, your estimated cost savings could be as much as US\$653,512

#### 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 3 year(s)

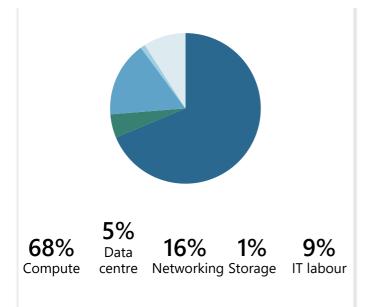
TCO of on-premises environments tends to be driven by compute and data centre costs.

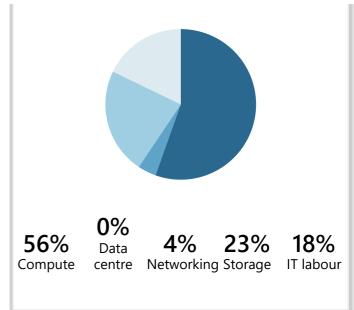
### Total Azure cost over 3 year(s)

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

US\$1,309,292 Total cost

US\$655,780 Total cost



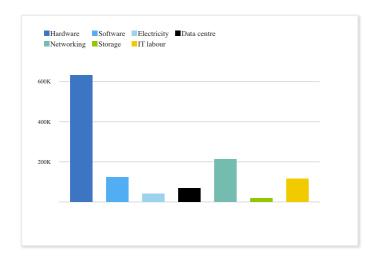


## Total on-premises cost breakdown

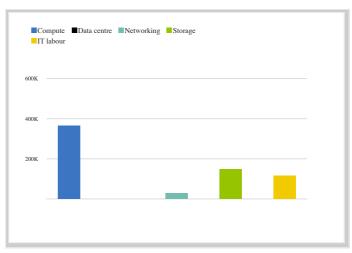
In Azure, several of the cost categories from the on-premises environment are consolidated and decrease with the efficiency that comes with the cloud.

#### **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\$1,309,292 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\$892,962.08

Hardware	US\$632,224.00	Compute	US\$364,284.00
Software Electricity	US\$123,100.00 US\$42,166.08	Data centre	US\$0.00
Virtualisation	US\$95,472.00	Networking	US\$27,639.00
Data centre	US\$68,917.56	Storage	US\$148,856.83
Networking	US\$213,237.39	IT labour	US\$115,000.23
Storage	US\$19,174.40		
IT labour	US\$115,000.23		

Total US\$1,309,292.00

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 virtualisation server US\$98 for Windows Number of servers needed	8,785.00
for 50 virtual machine(s) - 8 core, 16 GB RAM	2
Cost per 4 proc 32 core, 2000 GB RAM virtualisation server US\$98 for Linux Number of servers needed for 50 virtual machine(s) - 8 core, 16 GB RAM	8,785.00
Total cost for virtualisation us\$39 server(s)	95,140.00
Cost of maintaining virtualisation server(s) — 20% US\$79 of cost of virtualisation server(s)	9,028.00
Total cost of maintaining uS\$23 server(s) over three year(s)	37,084.00

#### Software cost

three year(s)

Total hardware cost over

Cost of Windows datacenter licence per 4 proc, 32 core, 2000 GB RAM virtualisation server

Number of servers needed for 50 virtual machine(s) - 8 2 core, 16 GB RAM

US\$632,224.00

Total software licence cost US\$98,480.00

Total Software Assurance cost US\$24,620.00

#### **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 Number of virtual machines	SKU# AAD- 10188 50
Total virtual machine cost per month	US\$5,059.50

# Total Azure Virtual Machines US\$364,284.00

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

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 Total electricity cost for 2	3,006.9 Watts
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
Virtualisation cost	
Virtualisation software licence cost	US\$0.00
Per virtual machine, per month, cost to load balance, back up 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 virtualisation cost over three year(s)	US\$95,472.00

Total cost over three year(s) US\$892,962.08

Total Azure compute cost over three year(s)

US\$364,284.00

#### Azure data centre cost

# **Compute cost**

•	
Number of rack units per rack	42
Rack units required per 32 core, 2000 GB RAM server Number of 32 core, 2000 G	4
RAM server	<sup>1</sup> B 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 G RAM server	iB 2
Total number of rack units required	US\$8.00
Total number of rack units required for all server(s)	US\$16.00
Data centre construction cost per rack unit amortised over 20 years	US\$302.27
Data centre compute cost	US\$4,836.32
Total data centre 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 centre storage cost over three year(s)	US\$54,408.60

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

Total data centre cost over three year(s)

US\$68,917.56

#### **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

US\$113,298.60

year(s)

Network maintenance cost

assumed to be 15% of network hardware and

US\$16,994.79

software cost over three year(s)

Service provider cost/GB per

US\$0.15

month

Amount of bandwidth 15,360 needed (GB) per month

Total service provider cost per US\$2,304.00

month

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

US\$0.20 Cost per GB Storage (RAID 10 61,440

configuration) volume in GB

Page Blob storage

Usable storage volume in GB Storage cost per GB/month

30,720 US\$0.045

Annual storage cost per usable US\$16,588.80 volume

Back up  Total back up and archive volume in GB  Storage cost per GB  SKU# AAL-31836  Back up and archive  Back up and archive  Back up and archive
Total back up and archive volume in GB  Storage cost per GB  SKU# AAL-31836  Back up and archive  122,880  US\$0.0224  SKU# AAL-31836
Storage cost per GB US\$0.0224  SKU# AAL- 31836  S160.00  Back up and archive
SKU# AAL- 31836 5160.00 Back up and archive
Back up and archive
Back up and archive
maintenance cost over three US\$99,090.4 200.00 year(s)
,686.40
686.40
Total Azure storage cost over US\$148,856.8

year(s) US\$115,UUU.25

Total Azure IT labour cost over three year(s)

US\$115,000.23

Total on-premises cost over three year(s)

US\$1,309,292.00 Total Azure cost over three year(s)

US\$655,780.00

A total savings of US\$653,512.00 with Microsoft Azure