



Smart Azure Calculator User Manual

Nov 2020

We Azure you; we'll make it simple.

Introduction

Congratulations on your subscription to the Smart Azure Calculator! This will allow you to develop much faster, more accurate and above all, more convincing price proposals for Azure Migrate projects. It's going to help you win more Azure Migrate deals!

The Smart Azure Calculator is a powerful tool, part of a method we developed over the years after winning hundreds of Azure Migrate projects in the past years. Based on these experiences we have developed a training to help you to be more successful in selling Azure Migrate project. See for yourself: <https://bit.ly/35WdJBd>

If you follow this guide, you will get the most out of the Smart Azure Calculator. If you prefer to watch demos instead, go to: <https://youtu.be/cf5pUmL8ilo>.

We also keep a blog explaining Azure pricing development, explaining new programs and sharing our experience on how to sell Azure Migrate projects. If you, as an Azure professional, want to stay informed about all the commercial aspects of Azure, follow our blog: [Blog - The CloudLab](#)

After subscribing via Azure Marketplace to the Smart Azure Calculator, you get access to the homepage of the Smart Azure Calculator.

Home page - My Cases

The Smart Azure Calculator begins at "My Cases" homepage where you have an overview of all your cases. You can start new cases, clone or delete them if they are no longer needed.

Search your cases.









All cases can be arranged by pressing the column names.

Start a new case.

My Cases

Search...

+ Add New

| ID | Name | Language | Started | Status Date | Status | Actions |
|-------|------------------------|----------|---------------|---------------|------------|---|
| S0326 | Smart Azure Calculator | English | Sun 02 Aug 20 | Sun 02 Aug 20 | PROCESSING |     |
| S0368 | Template Purpose case | English | Wed 05 Aug 20 | Mon 31 Aug 20 | PROCESSING |     |

Every case has a unique number. Reference ID if Support is required.

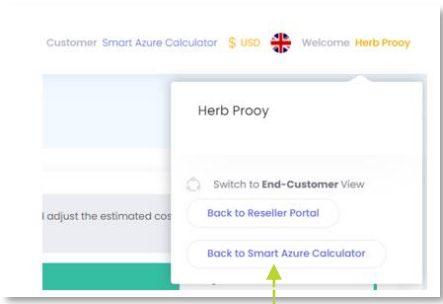
Cloning the selected case will create another case with same case data, useful as a second scenario, an alternative offer or as a template to start a quick specific calculation, for example, WVD.

Modify the case name.

Delete the case.

Drilldown to the case of the Smart Azure Calculator and start working on building your case to establish the Azure price estimate and offer.

You can return to My Cases homepage at any time by clicking on your name in the top right corner and selecting this button.



The Dashboard explained

The Dashboard has 8 TABs to work the whole case and is covering what is called the steps of “Customer Cloud Journey”. Go through every TAB even if you don’t change any variable. It is important to save any inputted fields as applicable. If you don’t, the graphs and tables in the Output files could have another outcome.

Before you start the case, double check if selected Azure Region is the correct one. Change as required and the price plan of selected Azure Region will be loaded automatically.

Microsoft Partners can choose to source software licenses via the CSP program. Select the CSP Country of your choice or select ‘Neutral’ for global pricing.

Region: West Europe CSP Country: Neutral

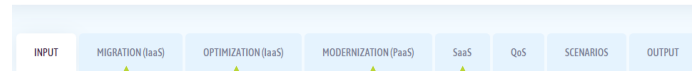
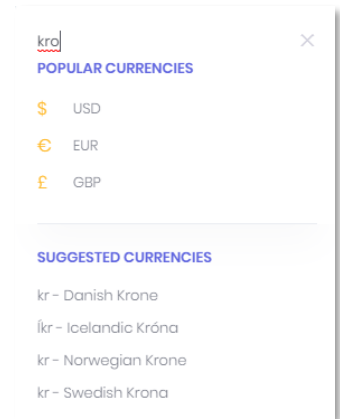
Name of the Reseller and Customer

Reseller: The Cloudlab Customer: Smart Azure Calculator

Available in English now. Other languages will be added soon.

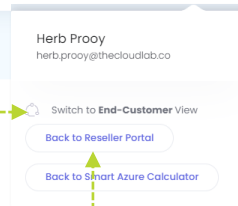
USD Welcome Herb Prooy

Search for your currency of choice. The selected currency is also the currency used in the Output files.



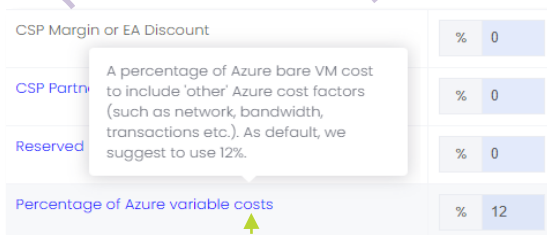
Migration and Optimization are mandatory TABs to tune Azure infrastructure before extending your cost analysis.

Click these TABs if you want to analyze the total cost of ownership (TCO) of available Modernization (PaaS) options; Azure SQL / Windows Virtual Desktop or SaaS options; Business Central / Dynamics 365.



Go back to Reseller Portal to access other cases.

Switch to End-Customer views to hide margin related content when reviewing the App side-by-side with your end-customers.



Within the Dashboard, some fields are in blue. Move your cursor over the blue-text fields to show relevant explanation accordingly.

Save

If you update any input field or section, always press “Save” before moving on.

Input

Input tab is where you load your case data. There are two options for loading case data into the Smart Azure Calculator; manual or automated via imports. Watch these instructional demos: https://youtu.be/ekYchf6_oRA and <https://youtu.be/Yw1nATcmF9o>.

Instant summary to assist data input.

Select the source of VM specification before adding.

Assign Purpose to VM(s) to estimate the best-matched Azure VM.

Delete row.

Automatically import Azure Migrate Excel output files.

For 'Configure' source, specify the VM size.

Select OS for the VM.

Save input for editing later.

Upon completing input, choose to insert or update all into VM grid.

Storage Input Summary; manually filled or Imported.

Click imported filename to re-open import screen (see next page).

When Import is initiated, an import Validation screen opens (see next page).

Overview of data input, grouped over KPIs, to quickly understand current infrastructure dynamics.

The interface shows a 'Compute' tab with a summary bar and a table of VM instances. The summary bar displays: Windows: 9 VM / 60 vCore / 384 GB | Linux: 2 VM / 12 vCore / 47 GB | GBRAM per VM (Windows): 42.7 | GBRAM per VM (Linux): 23.5 | GBRAM/Core ratio: 6.0. The table has columns: Purpose, Instance, # VM, Core/VM, GBRAM/VM, Operating System, and Source. It contains 6 rows of data. A dropdown menu for 'Source' is open, showing options: Azure VM, Amazon EC2, Azure VM (selected), Configure, and Google VM. Buttons for 'Import from file', 'Add', 'Save', 'Insert', and 'Update All' are visible. Annotations include: 'Instant summary to assist data input.' pointing to the summary bar; 'Select the source of VM specification before adding.' pointing to the 'Source' dropdown; 'Assign Purpose to VM(s) to estimate the best-matched Azure VM.' pointing to the 'Purpose' column; 'Delete row.' pointing to a red 'X' icon in the 'Purpose' column; 'Automatically import Azure Migrate Excel output files.' pointing to the 'Import' tab; 'For 'Configure' source, specify the VM size.' pointing to the 'Configure' source option; 'Select OS for the VM.' pointing to the 'Operating System' column; 'Save input for editing later.' pointing to the 'Save' button; 'Upon completing input, choose to insert or update all into VM grid.' pointing to the 'Insert' and 'Update All' buttons; 'Storage Input Summary; manually filled or Imported.' pointing to the 'Storage' tab; 'Click imported filename to re-open import screen (see next page).' pointing to a filename in the 'Import' tab; 'When Import is initiated, an import Validation screen opens (see next page).' pointing to the 'Import' button; and 'Overview of data input, grouped over KPIs, to quickly understand current infrastructure dynamics.' pointing to a KPI summary table.

| Purpose | Instance | # VM | Core/VM | GBRAM/VM | Operating System | Source |
|------------------|---------------|------|---------|----------|------------------|------------|
| Dynamics AX | AX_Production | 3 | 8 | 32 | AHB-Windows | Configure |
| Remote Desktop | RDS | 5 | 4 | 32 | PAYG-Windows | Configure |
| SQL Enterprise | EI6ds v4 | 1 | 16 | 128 | PAYG-Windows | Azure VM |
| Heavy ERP Apps | nl-standard-4 | 1 | 4 | 15 | PAYG-RHEL | Google VM |
| Batch Processing | m6gd.2xlarge | 1 | 8 | 32 | BYOL-Linux | Amazon EC2 |

| Primary | Backup | |
|---------|---------|---------|
| TB 1082 | TB 2000 | 3082 TB |
| % 7.2 | | |

| | |
|---|--------|
| Number of reported VMs | 1066 |
| Number of vCores in use (VM) | 1,796 |
| Number of GBRAM in use (VM) | 17,879 |
| Number of GBRAM in use per VM (Windows) | 16.1 |
| Number of GBRAM in use per VM (Linux) | 17.1 |
| GBRAM/Core ratio - VM in use | 10.0 |

Import Validation

Once Import is initiated, the App opens the Import Validation screen. Here you can select the scope of business case based on the Azure VM readiness. The important step is to define as much as possible the Purpose of all VMs and VM groups.

Select data import options

Azure VM readiness

- ☒ Ready for Azure
- ☒ Ready for Azure with Conditions
- ☐ Unknown Readiness
- ☐ Not Ready For Azure

Select the set of VMs to include in business case.

Review the details of the original and recommended VM sizing.

Indication of the monthly Azure VM cost.

Aggregate VMs

- ☒ Original sizing
- ☐ Recommended sizing

| | Total VM | Total Core | Total GBRAM | GBRAM/Core | Azure Consumption Estimate (VM only) |
|----------------------|----------|------------|-------------|------------|--------------------------------------|
| Original sizing | 1,066 | 4,355 | 17,879 | 4.1 | USD 203,931 |
| Recommended sizing | 1,066 | 3,085 | 9,791 | 3.2 | USD 128,833 |
| Relative differences | | 29% | 45% | | |

Select which data set you will use to continue to build the business case. We advise to take the Original sizing because the Right Sizing effort in later steps within the App will be better understood by the customer.

Use the available filters to further verify and complete VM Purpose setup.

Search for VM(s) by keywords.

Select all or some records, choose the Purpose value to update to and click save.

Repeat as necessary for next groups.

Machine: sql

Operating System: Microsoft Windows Server 2012 (64-bit)

VM Series: All

Purpose: All

Update: SQL Enterprise

Save

| Machine | Purpose | Operating System | VM Series | GBRAM | Core | # VM |
|-------------|----------------|--|-----------|-------|------|------|
| PR-SQLD-003 | SQL Standard | Microsoft Windows Server 2012 (64-bit) | Ev3 | 128 | 12 | 1 |
| PR-SQLD-007 | SQL Standard | Microsoft Windows Server 2016 (64-bit) | Dv3 | 16 | 4 | 1 |
| DV-SQLD-001 | Non-production | Microsoft Windows Server 2012 (64-bit) | Fsv2 | 8 | 4 | 1 |
| PR-SQLD-008 | SQL Standard | Microsoft Windows Server 2016 (64-bit) | Dv3 | 64 | 16 | 1 |

Storage

Total Primary Storage: 1,082 TB

Percentage on SSD: 7%

Aggregated storage volumes for Primary Storage based on Import options.

After Submit, return to Input page to review Customer cost.

Back

Submit

Input - Customer Benchmark Cost

Based on the Input variables, the App estimates the Benchmark cost for an infrastructure of the same size running in a legacy hosting environment. The benchmark calculation is built from data set of more then 800 Azure migrate viability studies. Going forward, the benchmark cost estimate will be referred to as "Customer Cost" and shall become your guide in building a competitive business case and prompting the customer to share his real cost levels to get an even more valuable Output.

| Estimated Cost Structure | Currency | |
|---|------------|--|
| Network | USD | 17,342 |
| DC/Co-location | USD | 32,758 |
| Total all-in FTE costs per month | USD | 40,466 |
| Primary Storage | USD | 51,508 |
| Auxiliary Storage | USD | 26,400 |
| Compute | USD | 38,539 |
| WinOS & HypVisor licenses | USD | 32,758 |
| Linux licenses | USD | 0 |
| Compliance audit | USD | 0 |
| Application Licenses | USD | 0 |
| Total monthly estimated infra-cost | USD | 239,771 |
| Reset all fields back to zero. | | <input type="button" value="Reset"/> <input type="button" value="Save"/> |

Monthly benchmark cost is calculated for key cost types. All fields are editable in case the customer is willing to share his actual costs, to make the business case more relevant.

Add the monthly audit cost if applicable.

Application license costs are added here as soon they are entered in the Application TABs, such as Azure SQL, WVD, BC or D365.

Turn off if you are not interested in comparing Azure cost evaluations against Customer Cost.



Customer Benchmark cost

| Estimated cost to run above sized infrastructure in a legacy hosting environment | | |
|--|----------------|-----------|
| Total GBRAM to be replaced | multiplier 1.4 | 25,031 GB |
| Depreciation Period (months) | 48 | |
| Compute cost per month | USD 38,540 | |
| Storage cost per month | USD 77,908 | |

If the Customer is still running v2008 or Win7 workloads, fill in the details and calculated ESU cost will be added to Customer Cost.

| End-of-support programs (v2008 and Windows 7) | | | |
|---|-------------|-----------------------------|---------------------------|
| Input Extended Security Updates (ESU) information so that applicable ESU cost are added to Estimated Cost to compare against ACE comparably (ESU are free after migrated to Azure). | | | |
| Windows Server v2008 | | SQL Server v2008 | |
| Date to start with ESU | 01-Jan-2021 | Date to start with ESU | 01-Jan-2021 |
| # WinSvrSTD Licenses | 0 | SQL Enterprise Server v2008 | SQL Standard Server v2008 |

Migration (IaaS) - Pricing variables and adjustments

In this step, the cost comparison is built between the monthly estimated Customer Cost and Azure Cost, assuming the customer's workloads are already running on an Azure infrastructure today with the same size and utilization, in terms of CPU/Cores and RAMs, without any of Azure benefits: the so-called "lift and shift" scenario.

In this table, you can adjust the applicable costs, via the Input column.

| Pricing Variables | Input | Adjusted |
|---|-------|----------|
| CSP Margin or EA Discount | % 15 | 8% |
| CSP Partner Incentive | % 10 | 10% |
| Reserved Instance Discount | % 5 | 5% |
| Percentage of Azure variable costs | % 15 | |
| Percentage of current infrastructure with multi-tenancy | | 0% |

If you are working an end-customer case and want to make a margin on your Azure offering, manage within this table. All the presented graphs in the App will include the margin set here. 'Sharing' discount or incentive means the percentage of your CSP/EA discount and/or incentive you leave for your customer. The end-customer margins appear in the 'Adjusted' column in the first table.

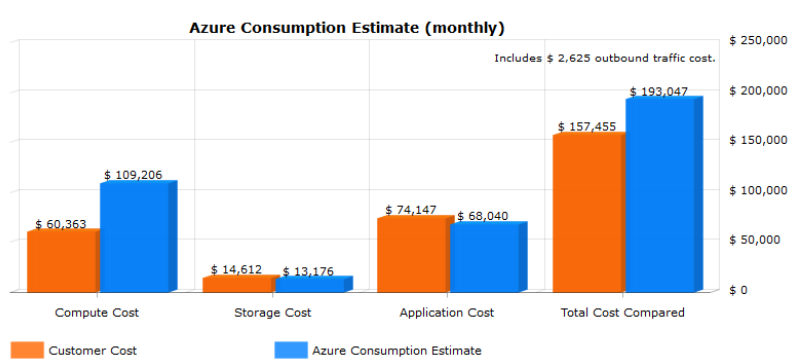
| End-Customer Pricing Variables | | |
|--------------------------------------|------|--|
| Managed Service Margin | % 10 | |
| CSP discount to share with customer | % 8 | |
| CSP incentive to share with customer | % 10 | |

The total absolute and relative margin you have built into the Azure consumption estimate you present to the customer.

| Current Indirect Cost Distribution | | |
|------------------------------------|------|------|
| Compute Cost | % 77 | Save |
| Storage cost | 23% | |

You can influence the calculated Customer Indirect cost distribution over Compute and Storage cost.

| Partner Margin for End-Customer | Currency | |
|---------------------------------|----------|--------|
| Absolute margin per month | USD | 27,592 |
| Relative margin | | 12.3% |



In the Azure Consumption Estimate (ACE) Comparison graph, the monthly ACE is presented compared with the monthly current Customer Cost. The Azure estimate displays the end-customer net price, including shared discount/incentives, along with, your service margin, if added.

Migration (IaaS) - The VM grid

In this section you manage the mixture of VMs you want to build the comparison with. Azure VM series differs based on GBRAM/Core ratios and price. The VM Grid is filled with a mixture of VMs based on the Input. Building the right mix of VMs can bring big savings.

Total GBRAM from VM grid

VM Grid

Windows: 4,684 / 4,684 GB | Linux: 3,888 / 3,888 GB

Customer's Windows and Linux GBRAM

Add VM lines as applicable in respective VM Category.

VM grid contain records derived automatically from Input. Review and edit VM grid records as applicable.

| Purpose | GBRAM | VM Series | VM Cost | Operating System | OS Cost | ACE |
|-----------------|----------|-----------|------------|--------------------|------------|------------|
| General Purpose | 3,524 GB | | USD 40,431 | Windows | USD 30,997 | USD 71,429 |
| SQL Enterprise | 2756 | Dv3 | USD 31,620 | PAYG-Windows | USD 24,242 | USD 55,862 |
| Remote Desktop | 256 | Dv3 | USD 2,937 | PAYG-CentOS/Ubuntu | USD 0 | USD 2,937 |

You can split and detail to every workload/purpose as needed. For example, SQL Enterprise workload can be split into 3 lines, total number of GBRAM remains the same (2,756 GBRAM) but by selecting better suited VM series and be smart in sourcing Operating System, the ACE for SQL Enterprise environments can drop by USD 17,666 or 32%.

| Purpose | GBRAM | VM Series | VM Cost | Operating System | OS Cost | ACE |
|-----------------|----------|-----------|------------|------------------|------------|------------|
| General Purpose | 2,756 GB | | USD 27,334 | Windows | USD 10,862 | USD 38,196 |
| SQL Enterprise | 1000 | Dv3 | USD 10,494 | PAYG-Windows | USD 8,045 | USD 20,148 |
| SQL Enterprise | 1000 | Dv3 | USD 10,494 | Sub-1Y Windows | USD 767 | USD 11,261 |
| SQL Enterprise | 756 | Bms | USD 6,347 | Sub-3Y Windows | USD 441 | USD 6,788 |

SQL-Location B

Non-Specified

1000

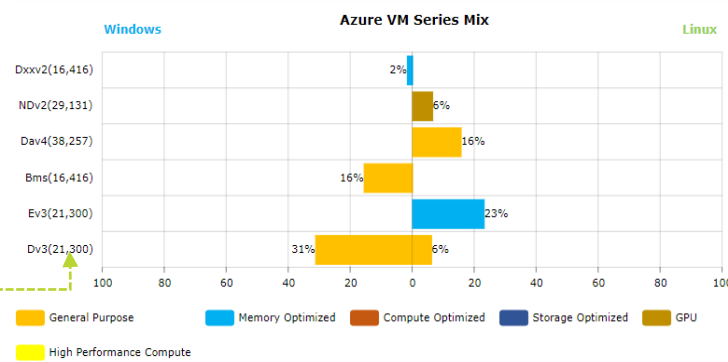
Dv3

Enter Purpose

SQL-Location C

Create custom Purpose 'labels' to detail each VM infrastructure.

Understand CPU benchmark rating of each VM-series as a guide to configuring VMs.



PAYG-SUSE-Prio

USD 22,995

Core/VM

VM

3

210

Estimate Windows Subscription and Other Linux (RH, SUSE, Ubuntu Advantage) OS Costs based on number of Core/VM and # VM.

Migration (IaaS) - Storage, ASR and Network

In this part, you manage the setup of the comparable Azure Primary storage, the mixture of SAS and SSD as well as the configuration of the Backup storage. ASR or outbound traffic could come up as a significant cost if they are sizeable.

| Weighted Primary Storage usage allocation | | Total Primary Storage: 1082 TB | |
|---|--|--------------------------------|-----|
| HDD (Sas/SATA) | | | 93% |
| SSD | | | 7% |

| Select your SSD Primary Storage mix | Price per GB | Percentage allocated |
|---|--------------|---------------------------|
| LRS Snapshots | | <div>Add SSD Remove</div> |
| <input type="checkbox"/> Standard SSD 32 GiB - 4 TiB | USD 0.069798 | % 30 |
| <input type="checkbox"/> Premium SSD 4 - 16 GiB | USD 0.195000 | % 30 |
| <input type="checkbox"/> Premium SSD snapshots on Std SSD | USD 0.050000 | % 20 |
| <input type="checkbox"/> Ultra Disks | USD 0.156618 | % 5 |
| <input type="checkbox"/> LRS Snapshots | USD 0.145000 | % 15 |

Save

| Weighted Backup storage | | Total Backup Storage: 2000 TB | |
|-------------------------|------|-------------------------------|--------------|
| Block Blob Premium | % 0 | LRS | USD 0.000000 |
| Block Blob Hot | % 30 | LRS | USD 0.005880 |
| Block Blob Cool | % 40 | GRS | USD 0.008000 |
| Block Blob Archive | % 30 | GRS | USD 0.000837 |

The Storage section starts with the representation of the Primary Storage Mix. You can adjust the mix of Primary SSD using 'Price per GB' as a guide. 'Price per GB' includes applicable discounts/margins.

If backup storage size exceeds multiple times of primary storage total, it makes sense to mix storage over Cool and Archive.

Input current number of VMs under DR and the number of VMs that truly need to be protected under ASR, relevant ASR cost is added to ACE.

| Azure Site Recovery | |
|----------------------------------|----|
| Number of VMs currently under DR | 50 |
| Number of VMs covered with ASR | 30 |

Save

Specify the public outbound traffic in terms of TB/month. Do not include the traffic routed via private networks or for backup synchronization.

It is advisable to request a special price if Outbound Traffic is above 500TB. Alternatively, consider Azure ExpressRoute to optimize the Outbound Traffic cost. Fill in the custom price per GB/month to re-calculate total Outbound Traffic cost accordingly.

| Azure Outbound Traffic Cost | |
|---------------------------------------|-----------|
| Outbound traffic in terms of TB/month | TB 50 |
| Extra cost for outbound traffic | USD 2,625 |
| Custom price per GB/month | USD 0.000 |

Save

Optimization (IaaS) - Right Sizing

In this section, the effects of the true consumption model of Azure are visualized. Pay for what you use is making the big difference in current hosting pricing models. (Pro)Active monitoring, analyzing workloads and better utilization of an Azure infrastructure should pay off. For more background on Optimization, watch this video <https://youtu.be/PhGQvOwEgWE>. For more details about Right Sizing, you can read in the Blog <https://bit.ly/2UU9iAs>.

The App is giving you two suggestions for Right Sizing. The first one is the difference between the processor performance of the current aged infrastructure compared with selected Azure VMs. If the Input comes from Azure Migrate, the Right Sizing suggestion between Original Sizing and Recommended sizing (see page 6) is listed here.

| Benefits on Right Sizing | | Azure Migrate Right Sizing Recommendation: Core 29% GBRAM 45% | | | | Right Sizing: 20% / 64% | |
|--------------------------|----------|---|--------------------|-------------|-------------|-------------------------|----------------|
| Purpose | GBRAM | VM Series | Operating System | ACE | ACE (Rs) | GBRAM (Rs) | Right Sizing % |
| General Purpose | 8,432 GB | | | USD 134,547 | USD 106,330 | 1,316 GB | 20% |
| Non-Specified | 30 | Bs | PAYG-CentOS/Ubuntu | USD 294 | USD 233 | GB 24 | % 21 |
| Non-Specified | 48 | D4v4 | PAYG-SUSE+24x7 | USD 783 | USD 642 | GB 39 | % 18 |
| Non-Specified | 4 | Bs | PAYG-RHEL | USD 127 | USD 114 | GB 4 | % 10 |

Right Sizing storage usage when migrating to Azure

Right Sizing Effect on Primary Storage during migration

% 20

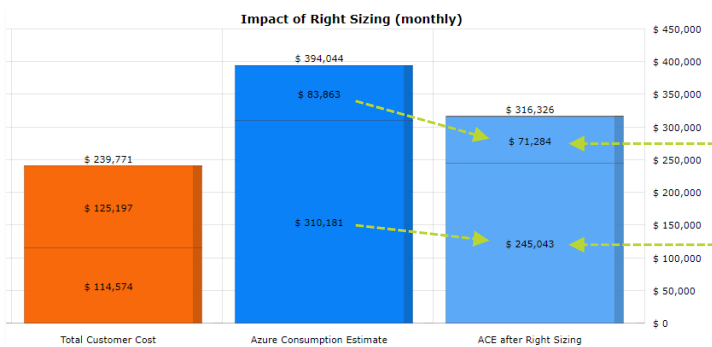
Compression ratio of Back-up Storage during migration

% 15

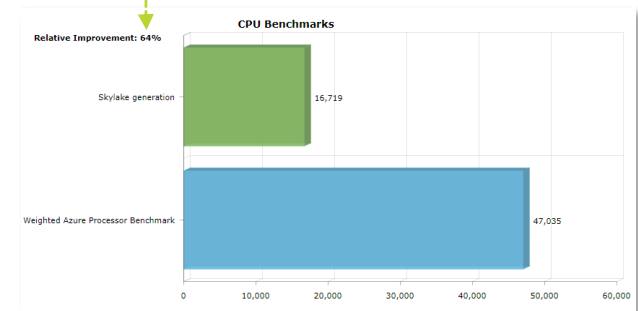
Save

Migrating storage always provide the opportunity to improve storage usage.

Based on the suggestions made, your own judgment or Customer's Input, you estimate the potential cost saving of Right Sizing.



The effect of Compute and Storage Right Sizing are visualized in terms of monthly cost savings.



Values from bottom to top represents Compute, Storage, Application and *Miscellaneous costs
* Miscellaneous consists of Compliance audit cost in Total Customer Cost and Networking cost in ACE

Optimization (IaaS) - Snoozing

The next Optimization step is snoozing; achieving savings by switching off unused VMs for a given period. Typically, VMs qualifying for snoozing are all non-production environments for development, testing or internal systems etc. Furthermore, there is always the hidden potential of VM that a customer doesn't use during nighttime or weekends and load-balanced VMs etc. Snoozing is free of charge and can save a lot of money.

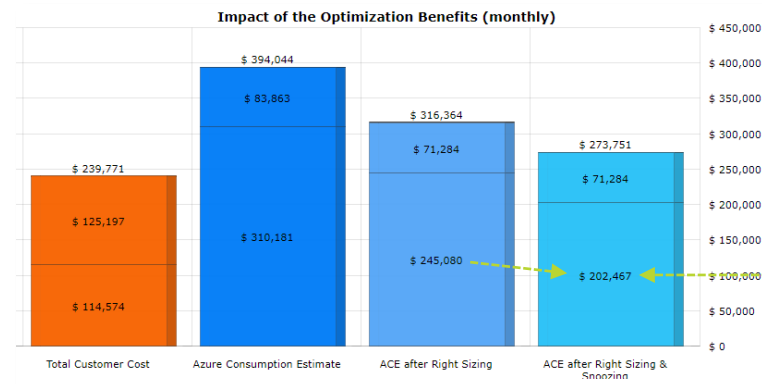
Based on purpose setup in VM Grid, the App is calculating the potential of snoozing VMs. You set the snoozing % or monthly hours for each VM-line to include this benefit in ACE calculations.

| Purpose | GBRAM (Rs) | VM Series | Operating System | ACE (Rs) | ACE (Rs+Snz) | Monthly Hours | Snoozing % |
|-----------------|------------|-----------|--------------------|-------------|--------------|---------------|------------|
| General Purpose | 6,663 GB | | | USD 106,330 | USD 63,667 | 7,139 Hours | 11% |
| Non-Specified | 4 | Bs | PAYG-RHEL | USD 114 | USD 105 | Hours 672 | % 8 |
| Non-Specified | 39 | D4v4 | PAYG-SUSE+24x7 | USD 642 | USD 629 | Hours 715 | % 2 |
| Non-Specified | 24 | Bs | PAYG-CentOS/Ubuntu | USD 233 | USD 205 | Hours 642 | % 12 |

You set the snoozing % or monthly hours for each VM-line to include this benefit in ACE calculations.

| | |
|---|------------|
| Absolute margin per month (Right Sizing & Snoozing) | USD 16,234 |
| Relative margin (Right Sizing & Snoozing) | 21% |

The effect of these two benefits is that the Azure consumption will drop significantly. Relative partner margin will not drop, however, in absolute term, it will. In this table, the effect of that drop in absolute margin is visualized.



The benefits of snoozing on the monthly Compute cost visualized.

Values from bottom to top represents Compute, Storage, Application and *Miscellaneous costs
 * Miscellaneous consists of Compliance audit cost in Total Customer Cost and Networking cost in ACE

Optimization (IaaS) - Reserved Instances

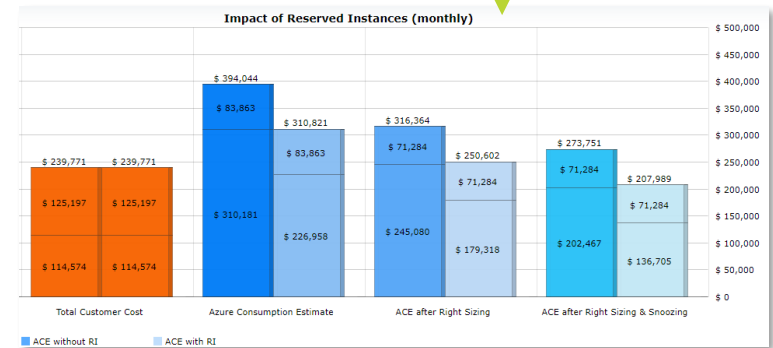
The last Optimization step is about Reserved Instances. Microsoft is giving the possibility to pay upfront for Azure consumption of selected VM types, giving substantial discounts if your customer is committing to consume VM-series volumes for one or three years.

In this table, with the VMs selected, you can allocate 1Y or 3Y Reserved Instances to commit for each VM and understand the commitment cost.

| Allocation of Reserved Instances | | | | | | | |
|----------------------------------|------------|-----------|--------------------|--------------|---------------|------------------------------|----------------------|
| Purpose | GBRAM (RS) | VM Series | Operating System | ACE (RS+Snz) | RI Type | RI Prepay | ACE with RI (RS+Snz) |
| Remote Desktop | 218 | Dv3 | PAYG-CentOS/Ubuntu | USD 2,283 | RI 1Y | USD 22,110 | USD 1,843 |
| SQL Enterprise | 2,205 | Dv3 | PAYG-Windows | USD 40,875 | Choose type | USD 0 | USD 40,875 |
| | | | | | Choose Type | | |
| | | | | | RI 1Y | | |
| | | | | | RI 3Y | | |
| Pre-payment per category | | RI 1Y | USD 184,350 | RI 3Y | USD 1,101,368 | Total pre-payment for all RI | |
| | | | | | | USD 1,285,718 | |

Review the commitment for the Reserved Instances.

In the graph, you review the effect of Reserved Instance (RI) on the monthly Azure consumption for the selected VMs, mouse-over each cost breakdown to understand the cost component.



Values from bottom to top represents Compute, Storage, Application and *Miscellaneous costs
 * Miscellaneous consists of Compliance audit cost in Total Customer Cost and Networking cost in ACE

| | | |
|--|---|-----|
| Managed Service Margin | | 10% |
| Azure discount when buying Reserved Instances | | 5% |
| Reserved Instances discount to share with customer | % | 2 |

CSP discounts are not applicable for Reserved Instances. For this, Microsoft is offering CSPs a RI-discount. Here you can define how much of that discount you want to pass over to customer. The Managed Service margin previously set is also applicable on the ACE calculations.

| | Currency | |
|---|----------|--------|
| Absolute margin per month (with all Azure benefits) | USD | 2,497 |
| Relative margin (with all Azure benefits) | | 13.6% |
| Upfront absolute margin for Reserved Instances | USD | 16,516 |

If the Azure consumption is dropping due to the Reserved Instances, then margin is dropping as well and visualized in this table. At the bottom of the table, the upfront absolute margin on committed VMs is calculated, if applicable.

Modernization (PaaS) and SaaS

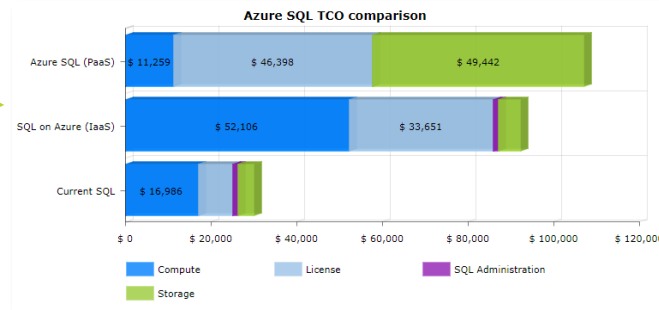
In these two TABs, you will get the chance of going beyond the advanced hosting capabilities of Azure by investigating the potential benefits of introducing the Modernization and SaaS offerings available on Azure. The structure of each Application TAB are consistent with key sections, we shall explain using the Azure SQL as an example.

You start by evaluating and adjusting the Azure IaaS solution, before building the PaaS and/or SaaS options.

After configuring all the options, you will review the impact not only in the total TCO impact, breakdown by cost category per option. This will allow a deeper understanding of the cost differences in price build-up, which, in turn, provide new insights to further finetune costs and/or margins.

At the last section of each TAB, add the missing information about the current environment with respect to SQL environments. This is essential to calculate the potential added value of Azure SQL.

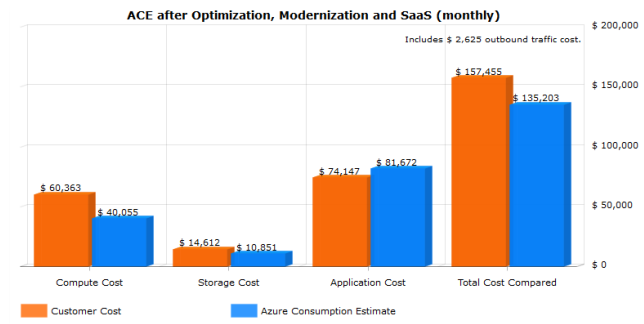
| | SQL Enterprise | SQL Standard |
|--|----------------|--------------|
| # SQL Servers | 4 | 3 |
| Total Primary storage in use | 80 | 20 |
| Total Backup storage in use | 120 | 30 |
| SQL monthly license cost | USD 7,200 | USD 750 |
| SQL Administration | USD 1,200 | |
| # SQL Enterprise servers in high-availability mode | 0 | |
| # SQL Standard databases in use | | 200 |



| | Current SQL | SQL on Azure (IaaS) | Azure SQL (PaaS) |
|------------------------------|-------------------|---------------------------|--------------------|
| Compute | USD 16,986 | USD 52,106 | USD 11,259 |
| License | USD 7,950 | USD 33,651 | USD 46,398 |
| SQL Administration | USD 1,200 | USD 1,200 | |
| Storage | USD 3,834 | USD 5,155 | USD 49,442 |
| Total | USD 29,969 | USD 92,111 | USD 107,099 |
| RI Commitment (SQL on Azure) | USD 229,698 | RI Commitment (Azure SQL) | USD 405,328 |

After configuration of the PaaS or SaaS solution, you must select which option you want to carry forward with the overall TCO analysis.

Once you save an option, the totals of the different cost categories are adjusted. The ACE graph gives a summary of TCO analysis per cost category. The absolute and relative margin estimates are also presented.



| | Currency | |
|---|----------|--------|
| Absolute margin per month (with SQL only) | USD | 5,577 |
| Absolute margin per month (with all Azure benefits and SQL) | USD | 19,286 |
| Relative margin | | 9.4% |

Relevant RI Commitment for SQL VMs and Azure SQL is displayed.

Azure SQL (PaaS) - SQL on Azure (IaaS)

Azure SQL Database is the intelligent, scalable, cloud database server managed by Microsoft. It is an alternative for managing your own SQL Servers and databases either on-premise or on Azure. Here you analyze the TCO effect of the different options to run your SQL databases. For a demo of this functionality, watch: <https://youtu.be/H9Mb7C0tNXY>.

Check and tune the SQL on Azure configuration. If necessary, go back to the VM Grid to adjust. You can also select the sourcing of SQL licenses.

SQL on Azure (IaaS)

SQL Compute

| Purpose | GBRAM (RS) | VM Series | VM Cost | Operating System | OS Cost | Compute Cost |
|-----------------------------------|------------|-----------|-----------|------------------|---------|--------------|
| SQL Enterprise | 218 | Dxxv2 | USD 1,808 | PAYG- Windows | USD 847 | USD 2,655 |
| SQL Standard_Dyn | 1,537 | Ev3 | USD 9,454 | PAYG- RHEL | USD 302 | USD 9,757 |
| Total SQL Compute Cost | | | | | | USD 12,412 |
| Current Customer SQL Compute Cost | | | | | | USD 44,619 |

SQL License

| Purpose | VM Series | Constrain Factor | # of Core | SQL License | License Cost |
|-----------------------------------|-----------|------------------|-----------|--------------|--------------|
| SQL Enterprise | Dxxv2 | 0 | 32 | PAYG-SQL Ent | USD 6,570 |
| SQL Standard_Dyn | EXT_Ev3 | 4 | 50 | PAYG-SQL Std | USD 2,738 |
| Total SQL License Cost | | | | | USD 9,308 |
| Current Customer SQL License Cost | | | | | USD 7,950 |

In SQL Storage, the prices of SQL storage are specified based on inputted SQL sizing.

Estimated current Customer Costs are made available to facilitate evaluation of cost differences.

SQL Storage

| | Storage Cost | |
|--|--------------|------------|
| Primary Storage - SQL Enterprise/Standard | USD 3,364 | |
| Backup Storage - Enterprise/Standard | USD 1,791 | |
| Total SQL Storage Cost | | USD 5,155 |
| Current Customer SQL Storage Cost | | USD 3,388 |
| Total SQL on Azure monthly infrastructure cost | | USD 68,150 |
| Total Current Customer SQL monthly infrastructure cost | | USD 27,908 |

Eligible Memory Optimized VMs can be setup as Extreme Memory Optimized VMs to constrain to lower active vCPU(s).

Optimize SQL License Cost according to available core constrain factor of 2 or 4.

Review current customer's SQL Administration cost and adjust as applicable for managing SQL servers on Azure.

SQL Administration

| | | | |
|-------------------------|-----|-------|------|
| SQL Administration Cost | USD | 1,200 | Save |
|-------------------------|-----|-------|------|

Azure SQL (PaaS) - Azure SQL (PaaS)

Azure SQL Database have two purchasing models. One is based on the underlying number of Cores of the compute tier, the other is based on Database Transaction Unit (DTU) with bundled compute and storage for common workloads. By default, the App lands SQL Enterprise capacity in vCore and SQL Standard in DTU. In this TAB, you find a comprehensive UI, including all Azure SQL configuration options and conditions, to fine tune the most optimal Azure on SQL configuration.

The number of cores is based Standard/Enterprise VMs found in the SQL License table above. Adjust to arrive at the ideal configuration as desired.

Choose the vCore service tier.

SQL storage volumes as specified by customer, adjust as appropriate.

Managed Instance backup defaults to read-access geo-redundant storage (RA-GRS). Tune the Backup and Long Term Retention (LTR) options as required if you are not going with managed.

Select single database or elastic pool with its service level.

DTU can be estimated from total SQL cores. As a guide, multiply # of Core by 75 (Basic), 100 (Standard) or 125 (Premium) to arrive at DTU total. Adjust the number of DTUs if you work with other factors.

The number of Assigned GBRAM is related to the Cores via a fixed factor.

Choose SQL license option and input SQL License Cost in case of BYOL.

Add Azure SQL records for relevant purchasing model to detail the suitable mix for SQL.

Select Reserved Instances for 1Y or 3Y to see the RI Commitment totals.

Different DTUs comes with their included storage and maximum available storage. If your DTU configurations involves high storage volume, be mindful of the included storage for your DTU sizing and maximum available storage and deduct included storage from your storage requirements to arrive at a more realistic Storage Cost.

The screenshot displays the Azure SQL (PaaS) configuration interface. It is divided into two main sections: 'Purchase model based on vCore' and 'Purchase model based on DTU'. The vCore section includes a table for 'vCore SQL Compute and License' with columns for vCore Option, Number of Cores, GBRAM Assigned, SQL License, RI Type, RI Prepay, Compute Cost, and License Cost. Below this is a table for 'vCore SQL Storage' with columns for vCore Option, Primary Storage, Backup Storage, Backup Zone, LTR %, Retention Zone, and Storage Cost. The DTU section includes a table for 'DTU SQL License and Storage' with columns for DTU Option, Number of DTUs, Storage Service, Storage, LTR %, Retention Zone, License Cost, and Storage Cost. The interface also shows summary rows for 'Total SQL Compute and License - vCore', 'Total SQL Storage - vCore', 'Total Azure SQL monthly cost - vCore', 'Total Azure SQL (PaaS) - DTU', 'Total Azure SQL monthly cost - DTU', and 'Total Azure SQL (PaaS) cost'. Various callouts point to specific fields and sections, providing additional context and guidance.

| vCore Option | Number of Cores | GBRAM Assigned | SQL License | RI Type | RI Prepay | Compute Cost | License Cost |
|--------------|-----------------|----------------|-------------|---------|-------------|--------------|--------------|
| BC-Gen 5 | 34 | 173 | BYOL | BC 3Y | USD 146,608 | USD 5,704 | USD 7,756 |

| vCore Option | Primary Storage | Backup Storage | Backup Zone | LTR % | Retention Zone | Storage Cost |
|--------------|-----------------|----------------|-------------|-------|----------------|--------------|
| BC-Gen 5 | GB 80,000 | GB 120,000 | RA-GRS | % 20 | RA-GRS | USD 44,823 |

| DTU Option | Number of DTUs | Storage Service | Storage | LTR % | Retention Zone | License Cost | Storage Cost |
|-----------------|----------------|-----------------|-----------|-------|----------------|--------------|--------------|
| Single-Standard | 39,100 | Standard | GB 20,000 | % 20 | RA-GRS | USD 47,959 | USD 4,916 |

If you want to better understand how Azure SQL Database works and configures, read <https://docs.microsoft.com/en-us/azure/sql-database/>.

Windows Virtual Desktop

Windows Virtual Desktop is a comprehensive desktop and app virtualization service running on Azure. It is an alternative for managing your own Remote Desktop Servers and databases either on-premise or on Azure. In this TAB, you analyze the TCO effect of the different options to achieve your existing Remote Desktop requirements translated into a WVD solution. For a demo of this functionality, watch https://youtu.be/CoDU_zkWSI4.

For Windows VM-series selected for the WVD infrastructure, its Windows OS license comes for free(select PAYG-Windows OS in VM grid). Snoozing benefits and Reserved instances are applicable for WVD infrastructure.

Verify the Remote App or Remote Desktop on Azure configuration. If necessary, go back to the VM Grid to adjust.

In the last section of TAB, enter information about current Remote Desktop environment for useful calculations.

| Collected information about Remote Desktop | |
|--|----------------|
| | Remote Desktop |
| Number of Remote Desktop servers | 22 |
| Number of Remote Desktop users | 600 |
| Monthly RDS license cost | USD 3,000 |
| Monthly Citrix/VMware cost | USD 6,600 |

| Remote Desktop on Azure (IaaS and PaaS) | | | | | | |
|---|------------|-----------|------------|--|------------|--------------|
| Purpose | GBRAM (RS) | VM Series | VM Cost | Operating System | OS Cost | Compute Cost |
| Remote App | 2,343 | Dv3 | USD 14,090 | PAYG-Windows | USD 18,847 | USD 32,937 |
| Remote Desktop | 653 | Dv3 | USD 6,850 | PAYG-Windows | USD 5,252 | |
| Total Remote Desktop on Azure (PaaS) monthly compute cost | | | USD 20,941 | Total Remote Desktop on Azure (IaaS) monthly compute cost | | |
| | | | | Total Current Customer Remote Desktop monthly compute cost | | |
| | | | | USD 23,004 | | |

Estimated current customer cost are made available to facilitate evaluation of cost differences. ESU Win7 cost are included in current cost if applicable.

Total Users for Office and Non-Office configuration

Customer's Remote Desktop and Office Users

By default, the App lands non-Office Remote Desktop users into Windows 10 Enterprise E3 and Office users into Microsoft 365 Business licenses. Citrix Products are defaulted as 0. Edit as applicable.

| Windows Virtual Desktop Software | | | | |
|---|-----------------|---------------------------------|--|--------------|
| Non-Office User: 825 / 725 Office User: 300 / 300 | | | | |
| # Users | User Type | Windows Virtual Desktop License | | License Cost |
| 725 | Non-Office | Windows 10 Enterprise E3 | | USD 5,742 |
| 300 | Office | Microsoft 365 Business | | USD 6,806 |
| 0 | Citrix Products | Citrix Managed Desktops Service | | USD 0 |
| 100 | Non-Office | BYOL-Windows OS | | USD 500 |
| Total 1,125 Users | | | Total Windows Virtual Desktop monthly license cost | |
| | | | USD 13,048 | |
| | | | Total Current Customer Remote Desktop monthly license cost | |
| | | | USD 20,823 | |

Select the desired WVD license.

Add WVD records to detail the suitable mix for overall WVD needs.

Input the total BYOL cost in License Cost if you have BYOL Licenses.

Included in WVD pricing is RD Gateway, Broker Session, Host, Database. To level the cost comparison, it is recommended to reduce the WVD Compute Cost. Recommended default is 11% reduction on WVD Compute cost. If applicable, update your estimated percentage reduction on WVD Compute cost.

| Windows Virtual Desktop parity | |
|-------------------------------------|------|
| Correction on WVD PaaS Compute cost | % 11 |

Business Central - NAV/GP on Azure (IaaS)

Business Central is a business management solution for small and mid-sized organizations that automates and streamlines business processes and helps you manage your business. For a demo of this functionality, watch: <https://youtu.be/EOOmXOt6F1k>.

Check and tune the NAV/GP on Azure configuration. If necessary, go back to the VM Grid to adjust. You can also select the sourcing of SQL licenses for NAV/GP SQL VMs.

Review the Current NAV/GP monthly cost spread over the Depreciation period as provided by Customer's input.

NAV/GP on Azure (IaaS)

NAV/GP Compute

| Purpose | GBRAM (GB) | VM Series | VM Cost | Operating System | OS Cost | Compute Cost |
|--------------------------------------|------------|-----------|------------|------------------------|------------|--------------|
| Access & Identify_Dyn | 256 | Dv3 | USD 2,086 | PAYG-RH+Ent-SAP BizApp | USD 13 | USD 2,700 |
| Internal Systems_Dyn | 512 | ArmV2 | USD 2,914 | PAYG-SUSE-HPC Std | USD 8 | USD 2,922 |
| Non-production_Dyn | 512 | ArmV2 | USD 2,914 | PAYG-RH+Ent | USD 168 | USD 3,072 |
| SQL Standard_Dyn | 1840 | Ev3 | USD 12,914 | PAYG-SUSE-Prlo | USD 40,880 | USD 53,794 |
| Total NAV/GP Compute Cost | | | | | | USD 62,488 |
| Current Customer NAV/GP Compute Cost | | | | | | USD 20,320 |

SQL License

| Purpose | VM Series | Constrain Factor | # of Core | SQL License | License Cost |
|---|-----------|------------------|-----------|--------------|--------------|
| SQL Standard_Dyn | EXT_Ev3 | 2 | 108 | PAYG-SQL Std | USD 12,376 |
| Total NAV/GP SQL License cost | | | | | USD 12,376 |
| Current Customer NAV/GP SQL License cost | | | | | USD 750 |
| Total NAV/GP on Azure monthly infrastructure cost | | | | | USD 74,864 |
| Total Current Customer NAV/GP monthly infrastructure cost | | | | | USD 21,070 |

Save

| Current NAV/GP Software | |
|--|------------------|
| NAV/GP software and licenses | USD 2,083 |
| Third party software (including embedded ISV software) | USD 417 |
| Maintenance cost on NAV/GP and Third party software | USD 4,167 |
| Implementation and customisation | USD 1,417 |
| Functional Support and Incident Management | USD 1,200 |
| Current NAV/GP software related monthly cost | USD 9,283 |

Current Customer SQL license cost for NAV/GP is approximated based on Customer's input for SQL Standard. Adjust the SQL license cost for Current Customer's NAV/GP infrastructure as applicable.

Eligible Memory Optimized VMs can be setup as Extreme Memory Optimized VMs to constrain to lower active vCPU(s).

Optimize SQL License Cost according to available core constrain factor of 2 or 4.

If you are working an end-customer case and want to make a margin on your Business Central offering, manage within this End-Customer pricing variables table.

| End-Customer Pricing variables | |
|--|------|
| CSP Margin on Business Central licenses | % 15 |
| CSP Margin on Business Central licenses to share with customer | % 15 |
| Managed Service Margin on Business Central licenses | % 0 |

Business Central - on-premises vs cloud

Business Central offers on-premises and online solutions. Compare on-premises costing against cloud solution to determine which solution is financially viable for each case.

Converted users are calculated based on existing concurrent full users multiplied by 3. Microsoft is offering this migration benefit to convert 1 concurrent user to 3 named users.

Based on customer input, Essentials or Premium price plan is defaulted. Adjust as required.

Input extra named users for Full User and Team Member as required.

Add records to detail the suitable mix for each solution for comparison.

Based on customer input, Essentials or Premium price plan is selected. Adjust as required.

Input extra named users for Full User and Team Member as required.

Dynamics 365 Business Central on Azure (IaaS)

Dynamics 365 Business Central on-premises user subscriptions on Azure

| Dynamics 365 Business Central Plan | Premium | Converted User | Extra User | Monthly Cost |
|------------------------------------|---------|----------------|------------|--------------|
| Full user | | 48 | 5 | USD 275 |
| Team member | | 24 | 10 | USD 568 |

Save

Dynamics 365 Business Central on-premises add-ons on Azure

Add

| Dynamics 365 Business Central on-premises option | Type | Unit | Monthly Cost |
|---|------|------|--------------|
| <input checked="" type="checkbox"/> Dyn365 Business Central Application Builder | User | 5 | USD 632 |
| <input checked="" type="checkbox"/> Dyn365 Business Central Solution Developer | User | 2 | USD 884 |

Non-embedded third party software cost

USD 417

Business Central maintenance cost

USD 4,167

Functional Support and Incident Management on-premises cost

USD 1,200

Migration cost from NAV/GP to Dynamics 365 Business Central on-premises

Total migration: USD 150,000

Total Dynamics 365 Business Central on Azure monthly license cost

USD 10,643

Upfront investment for Dynamics 365 Business Central on-premises licenses

USD 141,540

Save

Dynamics 365 Business Central cloud

Dynamics 365 Business Central cloud user subscriptions

| Dynamics 365 Business Central Plan | Premium | Converted User | Extra User | Monthly Cost |
|------------------------------------|---------|----------------|------------|--------------|
| Full user | | 48 | 5 | USD 1,552 |
| Team member | | 24 | 10 | USD 1,705 |

Save

Dynamics 365 Business Central cloud add-ons

Add

| Dynamics 365 Business Central cloud option | Type | Unit | Monthly Cost |
|--|------|------|--------------|
| <input checked="" type="checkbox"/> Microsoft PowerApps Plan 2 | User | 1 | USD 38 |
| <input checked="" type="checkbox"/> Flow per business process plan | User | 1 | USD 95 |

Non-embedded third party software cost

USD 417

Change and Release management (One Version)

USD 0

Functional Support and Incident Management on cloud

USD 1,200

Migration cost from NAV/GP to Business Central cloud

Total migration: USD 150,000

Total Dynamics 365 Business Central cloud monthly cost

USD 7,507

Planned date of migration to Business Central

01-Mar-2020

Microsoft benefit on Dynamics 365 Business Central cloud licenses

USD 41,130

Save

Monthly cost are calculated based customer inputs. Adjust the monthly cost as appropriate to arrive at a suitable configuration.

Dynamics 365 - AX/CRM on Azure (IaaS)

Dynamics 365 revolutionizes CRM and ERP by applying intelligence to all forms of data. Dynamics 365 is the world's connected business cloud designed to help you better understand your business, develop and execute tactics/strategies to be successful. For a demo of this functionality, watch <https://youtu.be/EOOmXOt6F1k>.

Check and tune the AX/CRM on Azure configuration. If necessary, go back to the VM Grid to adjust. You can also select the sourcing of SQL licenses for AX/CRM SQL VMs.

| AX/CRM on Azure (IaaS) | | | | | | |
|--|------------|------------------|------------|------------------------|--------------|--------------|
| AX/CRM Compute | | | | | | |
| Purpose | GBRAM (Rs) | VM Series | VM Cost | Operating System | OS Cost | Compute Cost |
| Access & Identify_Dyn | 256 | Dv3 | USD 2,686 | PAYG-RH-Ent-SAP BizApp | USD 13 | USD 2,700 |
| Dynamics AX | 256 | Dv3 | USD 2,686 | PAYG-SUSE-HPC Prio | USD 40 | USD 2,726 |
| Internal Systems_Dyn | 512 | ArmV2 | USD 2,914 | PAYG-SUSE-HPC Std | USD 8 | USD 2,922 |
| Non-production_Dyn | 512 | ArmV2 | USD 2,914 | PAYG-RH-Ent | USD 158 | USD 3,072 |
| SQL Standard_Dyn | 1840 | Ev3 | USD 12,914 | PAYG-SUSE-Prio | USD 40,880 | USD 53,794 |
| Total AX/CRM Compute cost | | | | | | USD 65,214 |
| Current Customer AX/CRM Compute cost | | | | | | USD 20,320 |
| SQL License | | | | | | |
| Purpose | VM Series | Constrain Factor | # of Core | SQL License | License Cost | |
| SQL Standard_Dyn | EXT_Ev3 | 2 | 108 | PAYG-SQL Std | USD 12,376 | |
| Total AX/CRM SQL License cost | | | | | USD 22,304 | |
| Current Customer AX/CRM SQL License cost | | | | | USD 0 | |

Eligible Memory Optimized VMs can be setup as Extreme Memory Optimized VMs to constrain to lower active vCPU(s).

Optimize SQL License Cost according to available core constrain factor of 2 or 4.

| End-Customer Pricing variables | |
|--|------|
| CSP Margin on Dynamics 365 licenses | % 15 |
| CSP Margin on Dynamics 365 licenses to share with customer | % 15 |
| Managed Service Margin on Dynamics 365 licenses | % 0 |

Manage the margins on Dynamics 365 offering for end-customer case.

Review the Current CRM/AX monthly cost spread over the Depreciation period as provided by Customer's input.

| Current AX/CRM Software | | | |
|---|------------|--|------------|
| | AX | | CRM |
| AX software and licenses | USD 7,500 | CRM software and licenses | USD 4,000 |
| Third party software | USD 4,167 | Third party software | USD 333 |
| Maintenance cost on AX and Third party software | USD 4,167 | Maintenance cost on CRM and Third party software | USD 4,167 |
| Implementation and customisation | USD 1,333 | Implementation and customisation | USD 2,000 |
| Functional Support and Incident Management | USD 8,500 | Functional Support and Incident Management | USD 1,200 |
| Current AX software related monthly cost | USD 25,667 | Current CRM software related monthly cost | USD 11,700 |

Estimated current customer costs are made available to enable evaluation of cost differences.

| AX/CRM Storage | | Storage Cost |
|---|--|--------------|
| Primary storage cost - AX/CRM | | USD 2,018 |
| Backup storage cost - AX/CRM | | USD 2,383 |
| Total AX/CRM Storage cost | | USD 4,401 |
| Current Customer AX/CRM Storage cost | | USD 2,356 |
| Total AX/CRM on Azure monthly infrastructure cost | | USD 91,919 |
| Total Current Customer AX/CRM monthly infrastructure cost | | USD 22,676 |

Prices of AX/CRM Storage are specified based on inputted AX storage sizing.

Tick the applicable configuration(s) if they exists in current AX and/or CRM infrastructure to level with Dynamics 365 capabilities.

| Business value parity | |
|--|---|
| Dynamics 365 has automatic fault tolerance configurations which represents high business value: "AlwaysOn" SQL cluster with an RPO of less than 5 seconds, GRS data storage, double infrastructure set-up and full disaster recovery. Base assumption is that current customer costs does not include below configurations. Tick the applicable configuration(s) if they exists in current AX and/or CRM infrastructure to level with Dynamics 365 capabilities. | |
| <input checked="" type="checkbox"/> AlwaysOn SQL cluster | <input type="checkbox"/> Geo-redundant data |
| <input type="checkbox"/> High-availability | <input type="checkbox"/> Full Disaster recovery |

Dynamics 365

Dynamics 365 combines enterprise resource planning (ERP) and customer relationship management (CRM) into one cloud-based solution for medium to large organizations.

User subscriptions are defaulted based on customer inputs. Edit as appropriate.

Add record(s) for the Dynamics 365 areas and detail the desired mix as appropriate.

Monthly costs are calculated based customer inputs. Adjust each cost as required to arrive at a suitable configuration.

The screenshot displays the Dynamics 365 configuration interface, which is organized into several sections. Each section contains a table of items with columns for 'Type', 'Unit', and 'Monthly Cost'. The sections are: Dynamics 365 Subscriptions, Dynamics 365 Capacity, Dynamics 365 Sandbox, Dynamics 365 Add-ons, and a summary section at the bottom. Each section has an 'Add' button to the right. The summary section includes 'Third party add-in software cost', 'Maintenance Cost', 'Functional Support and Incident management cost', 'Change and Release Management cost', 'Migration cost from AX/CRM to Dynamics 365', and 'Total Dynamics 365 monthly cost'. A 'Save' button is located at the bottom right of the interface.

| | Type | Unit | Monthly Cost |
|---|-----------------|-------------|-------------------|
| Dynamics 365 Subscriptions | | | |
| Dynamics 365 Plan | User | 100 | USD 15,517 |
| Dynamics 365 Team Members | User | 100 | USD 633 |
| Dynamics 365 for Sales Enterprise Device | Device | 50 | USD 5,740 |
| Dynamics 365 Capacity | | | |
| Common Data Service File Capacity | GB | 10 | USD 21 |
| Dynamics 365 Unified Operations - Database Capacity | GB | 20 | USD 844 |
| Dynamics 365 Sandbox | | | |
| Dynamics 365 Plan - Unified Operations Sandbox Tier 1:Developer & Test Instance | Instance | 1 | USD 314 |
| DevTest instance - E4 v3 at 250 hours per month | Instance | 1 | USD 84 |
| Dynamics 365 Add-ons | | | |
| Dynamics 365 Unified Operations - Order Lines | User | 10 | USD 5,278 |
| Dynamics 365 for Customer Service Chat | User | 20 | USD 1,267 |
| Dynamics 365 for Field Service - Resource Scheduling Optimization | User | 10 | USD 238 |
| Summary | | | |
| Third party add-in software cost | | | USD 7800 |
| Maintenance Cost | | | USD 8,333 |
| Functional Support and Incident management cost | | | USD 9,700 |
| Change and Release Management cost | | | USD 280 |
| Migration cost from AX/CRM to Dynamics 365 | Total Migration | USD 200,000 | USD 3,333 |
| Total Dynamics 365 monthly cost | | | USD 59,382 |

Quality of Service

Making a choice for Azure is not only about money, the Quality of Services is important as well. In this section, a comparison is made between the Customer's SLA and the SLA of Azure. To understand how to sell better using Quality of Services, watch this: https://youtu.be/curN2lg_Dbw.

Fill in the Customer SLA details.

| Quality of Services Aspects | CONTOSO | AZURE |
|--|--------------------------------|---|
| Availability guarantee | | |
| Uptime guarantees on the infrastructure | % 99.96 | 99.95% up to 99.99% |
| Max. service credits pay out | % 0 | 20% |
| Data Back-up | | |
| Back-up frequency to recovery vault per 24 hours | 14 | Up to 3 |
| Back-up frequency to disk per 14 hours | 1 | 15 minutes to one hour |
| Retention options | daily, weekly, monthly, yearly | daily, weekly, monthly, yearly |
| Guaranteed maximum retention period | 1 | Up to 99 years |
| Back-up data encrypted | Yes | Option, with AE256 |
| Disaster Recovery | | |
| Pricing policy for DR | USD 50 | \$25 per VM protected |
| RPO and RTO guaranteed | RPO 1 hours, RTO 24 hours | Best RPO < 1 minute |
| Data Security and Compliance | | |
| Two-factor authentication | No | Yes |
| Protection against identity fraud | Yes | Included |
| Current compliance certifications | CSA, HIPAA | CDSA, GxP, ISO9001, 20000, 2301, 27001, 27018, MPAA, ISAE/SSAE, SOC1, SOC2, SOC3, WCAG plus many local ones |
| Audit Cost | USD 0 | All Azure compliance certificates included |

Annual audit cost are updated to Customer Cost automatically for cost comparisons.

Scenarios

Scenarios TAB offers the possibility to develop 3 financial migration scenarios to bring over your customer workloads to Azure. Scenarios provide insights on effects of migration speed on Cost developments overtime, additional cumulative cashflow and, if applicable, Microsoft Incentives (dependent on committed Azure consumption target). To understand the use and purpose of Scenarios, watch <https://youtu.be/XGlnlfzkPAU>.

In the first table of Scenarios, different variables for setting the scenarios are defined. We advise to base the first 2 scenarios on a migration effort by in-house staff, plus external expertise if needed, where rule of thumb is migrating maximum 100 VMs per month. Use Scenario 3 for a radical approach, by outsourcing migration to a specialized company, using tools in combination with a 'migration factory' in a low-cost setting with migration up to 1,000 VMs per month. For Scenario 3, the lead time before the migration project is longer than in Scenario 1 and 2.

| Remaining bookvalues at the end of the DC contract | Scenario 1 | Scenario 2 | Scenario 3 |
|--|------------|------------|------------|
| Remaining network cost | 50% | % 50 | % 50 |
| Remaining DC/Co-location cost | 25% | % 25 | % 25 |
| Remaining staff costs after migration | 50% | % 50 | % 50 |
| Remaining storage cost | 25% | % 25 | % 25 |
| Remaining VM Server cost | 25% | % 25 | % 25 |

In the second table, adjust the variables that have to do with remaining liabilities and book values after the Datacenter contract ends, based on the depreciation period the customer is using and thinking smart about the remaining book-values.

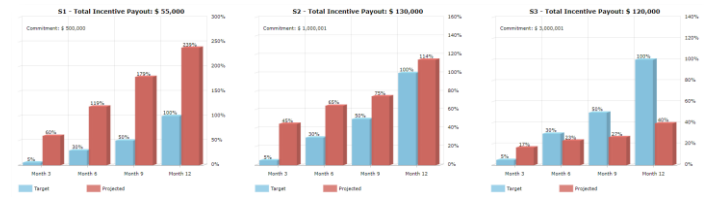
If the Azure cost are substantial lower than the Customer Cost, it could be more beneficial to close the current DC, pay a penalty and end with higher book values.

The migration cost variables are adjusted in the third table. In the first two lines, you can add external cost (per month) for training and/or support. Estimated migration cost is the cost of a migration engineer to move a VM with workload to Azure. USD 200 cost per VM is a market standard for in-house migration. Specialized migration companies offer prices for migrating VMs at USD 50 per VM or even lower.

In the fourth table, the Microsoft Incentive program variables can be managed, if applicable for your case. If unsure, check with your Microsoft rep. Azure Consumption Target is set on a trial-and-error basis.

| Microsoft Migration Incentive program | Currency | Scenario 1 | Scenario 2 | Scenario 3 |
|--|----------|------------|------------|------------|
| Azure Migration Program (AMP) | | | | |
| Azure Consumption Target | USD | 500,000 | 500,000 | 500,000 |
| ECIF % of commitment | | % 0 | % 0 | % 0 |
| ECIF in USD based on Azure consumption | USD | 0 | 0 | 0 |
| Datacenter Migration Program | | | | |
| Azure Consumption Target | USD | 500,000 | 500,000 | 500,000 |
| Percentage cash incentive if reaching 100% of the committed Azure amount | | 12% | 12% | 12% |
| Cash incentive if reaching 100% of the committed amount | USD | 60,000 | 60,000 | 60,000 |
| Select the applicable Migration Incentive Program to apply for all scenarios | | | | |
| <div> No Incentive Program No Incentive Program Azure Migration Program (AMP) Datacenter Migration Program </div> | | | | |

Adjust the values to understand incentive payout potential for available Azure Migration Program.



Select Datacenter Migration Program to generate Incentive Payout charts to visualize potential payout against targets.

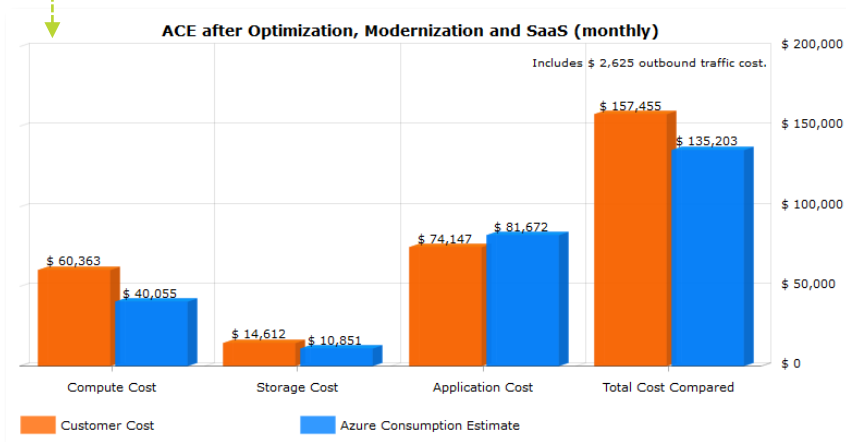
In the last table, the results of 3 scenarios are summarized in terms of major KPIs. There can be up to 3 graphs per scenario to assist with visualizing your Scenario building - cost development, cumulative cash flow and lastly, incentive payout (as applicable).

Output

In the Output section, you create the Customer Presentation, including graphs and tables supporting the price offer. The second Output file is a Word document with all the case details, settings, all graphs and all tables. The last document is an Internal Memo summarizing the case and defining the margins you will make in the case. To understand what you can do to improve your margin, watch this video: <https://youtu.be/ObkoCEowWx0>.

Review the final Azure Consumption Estimate Comparison graph after Optimization, Modernization and SaaS (as applicable). The latest margin information is also presented for overall review before you select your preferred output files.

| Partner Margin after Optimization, Modernization and SaaS | Currency | |
|--|----------|--------|
| Absolute margin per month (with all Azure benefits and Applications) | USD | 13,337 |
| Relative margin (with all Azure benefits and Applications) | | 12.8% |



Outputs of TCO Analysis

- Create TCO Presentation
- Create Word Document with all case details
- Create Internal Memo for deal approval

Download the Output files with the actual case data, graphs and tables, to build your presentation, quote or an internal memo for deal approval purposes.

The output files are generated in native format to make it easy to customize it to your specific needs.



Customer Benchmark cost

If Customer Cost is not required, switch off the Customer Benchmark cost in the presentation to the Customer. The Customer Cost values will not be displayed.

Selling Azure Migrate requires another approach than legacy hosting offers. In this video we share our experiences and insights on how to be successful: <https://youtu.be/RtvRBgMrjc8>.



Output - Competing with AWS

In many Azure Migrate cases, you must compete against AWS. We have run many compete cases and developed a couple of slides in the Customer Presentation which can help you in winning the deal.

Volume of Windows GB RAM in use by Contoso complete case

| | Windows | | |
|-------------------|---------|-------|---------|
| | #Server | #CPUs | #GB RAM |
| Virtual Machines | 401 | 1,732 | 6,475 |
| Physical Machines | 0 | 0 | 0 |
| | 401 | 1,732 | 6,475 |

Average Windows PAYG license price per GB RAM: USD 6.50
Buying your Windows license via an EA or CSP can save you up to 90%: USD 0.65
* Structural monthly saving on Windows PAYG licensing compared to AWS: USD 37,879

Annual structural cost savings on Windows licensing compared to AWS: USD 454,545
Structural cost saving on Windows licensing compared to AWS over 5 years: USD 2,272,725

The App calculates the difference between Azure and AWS Windows server license costs based on all case data sets. For this, you must utilize Azure AHB benefits for Windows OS licenses. You can select 'AHB-Windows' for VM OS within the VM Grid (see page 9).

Azure Site Recovery is an enormous added value for many customers. It guarantees much higher availability at a low cost. AWS' disaster recovery solution is much more expensive than that of Azure. The App calculates the cost difference based on case data.

AWS CloudEndure Disaster Recovery Pricing

| Volume Discount Tier (Per Machine Pricing) | 1 Month | 12 Months | 36 Months |
|--|---------|-----------|-----------|
| 1-99 Machines | \$99 | \$1,068 | \$2,556 |
| 100-499 Machines | \$74 | \$804 | \$1,908 |
| 500-999 Machines | \$64 | \$696 | \$1,656 |
| 1,000-4,999 Machines | \$54 | \$588 | \$1,404 |
| 5000+ Machines | \$45 | \$480 | \$1,152 |

The AWS cost per month for protecting 1078 servers is USD 58,212
The comparable Azure ASR cost per month is USD 26,950

A full protected environment on Azure compare to AWS will save you structurally annually USD 375,144
Over the 5 years TCO horizon this saves USD 1,875,720

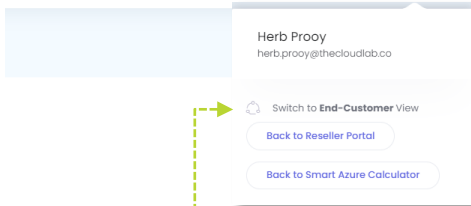
We have made a video to share our experiences on how to compete successfully against AWS, watch <https://youtu.be/o813JONPyiM>.



Getting the Customer buy-in

After going through this manual or working with the Smart Azure Calculator, you have learnt that in order to make a successful price proposal, the involvement of the customer is important. Smart Azure Calculator offers different possibilities to get the customers' buy-in.

Reseller The Cloudlab Customer Smart Azure Calculator USD Welcome Herb Prooy



Switch to End-Customer views to hide margin related content when reviewing the App side-by-side with your end-customers.

All cost estimates are presented as Customer net pricing, inclusive of your Customer-shared margins and/or service margin.



In the Output TAB, you can send an email invite to your Customer Expert(s) with an active link to review your case.

If Send Invite is triggered again, latest URL is the latest and previous URL will not work.



If desired, delete the active CE URL to ensure there is no unauthorized access to your case.

Giving the customer access to their own case will not only increase their involvement but also their understanding of how the dynamics of Azure pricing work and what opportunities there are for them to reduce Azure costs.



Success in winning new Azure Migrate business!

We Azure you; we'll make it simple.

At least we try

Have any question or suggestion for further improvements?
Send us an email: info@thecloudlab.com

