



IT – Infrastructure Solutions

FinOps and Cost Optimization in Azure

Cloud Lunch & Learn Session

FinOps and Cost Optimization in Azure

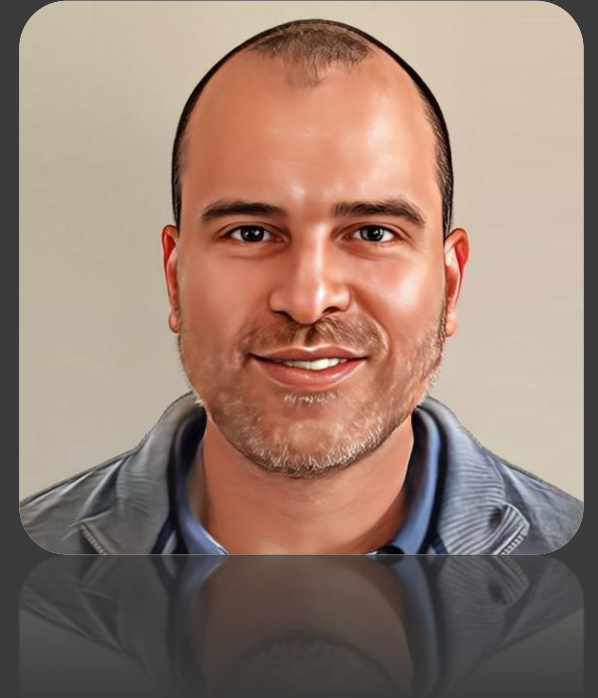


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Agenda

- Why
- Definitions
- FinOps / Cost Optimization Principles
- Tools
- Ways to Optimize

FinOps / Cost Optimization

Why ?

Cloud computing allows almost anyone to set up and create a virtual data center with a single command. However, this also creates many problems, and, in terms of costs, it is known as **Overspending**.

How Does Overspending occur?

- **Over-Provisioned**
- **Over-Sized**
- **Orphaned**
- **Abstracted Hidden Pricing**
- **No Visibility**
- **Centralized Purchases**
- **Old-School Processes**
- **CapEx-Focused**
- **IaaS – Focused**
- **No Commitments**

FinOps / Cost Optimization Definitions

FinOps / Cost Optimization

Definitions #1



FinOps

FinOps (Finance + DevOps) is an evolving cloud financial management discipline and cultural practice that enables organizations to get maximum business value by helping engineering, finance, IT, and business teams to collaborate to take advantage of the variable cost model of the cloud.

FinOps / Cost Optimization

Definitions #2



Cost
Optimization

Cost optimization is ensuring that the money your organization spends is being used to maximum effect.

CapEx

When an organization decides to own infrastructure, it buys equipment that goes onto the balance sheet as assets. Because a capital investment was made, accountants categorize this transaction as a capital expense (CapEx).

FinOps / Cost Optimization

Definitions #3



OpEX

Cloud services, on the other hand, are categorized as an operating expense (OpEx) because of their consumption model. Under this scheme, there's no asset to amortize. Instead, OpEx has a direct impact on net profit, taxable income, and the associated expenses on the balance sheet.

FinOps / Cost Optimization Principles

FinOps / Cost Optimization Principles #1

(FinOps Framework – FinOps Foundation)



- Teams need to collaborate
- Everyone takes ownership of their cloud usage
- FinOps reports should be accessible and timely
- A centralized team drives FinOps
- Decisions are driven by the business value of cloud
- Take advantage of the variable cost model of the cloud

FinOps / Cost Optimization Principles #2

(Azure Well Architected Framework)



- **Plan** and **Estimate** Costs
- **Design** and **Provision** with **Optimization**
- Use **Monitoring** and **Analytics** to gain **Cost Insights**
- Maximize **Efficiency** of **Cloud Spend**

Available Tools

Part 1

Tool	Description
Azure Pricing Calculator	Allows you to mix and match different combinations of Azure services to see an estimate of the costs.
Azure Cost Management	A suite of tools that help organizations to monitor, allocate, and optimize the cost of their Microsoft Cloud workloads.
Azure Advisor	Analyses configurations and usage telemetry and offers personalized, actionable recommendations to help optimize resources for reliability, security, operational excellence, performance, and cost.

Available Tools

Pricing Calculator

Pricing calculator


Configure and estimate the costs for Azure products





Products

Select a product to include it in your estimate.


- Featured
- Compute**
- Networking
- Storage
- Web + Mobile
- Containers
- Databases
- Data + Analytics
- AI + Cognitive Services
- Internet of Things
- Enterprise Integration
- Security + Identity
- Developer Tools
- Monitoring + Management


 **Virtual Machines**
Provision Windows and Linux virtual machines in seconds


 **Virtual Machine Scale Sets**
Manage and scale up to thousands of Linux and Windows virtual machines

 **App Service**
Quickly create powerful cloud apps for web and mobile

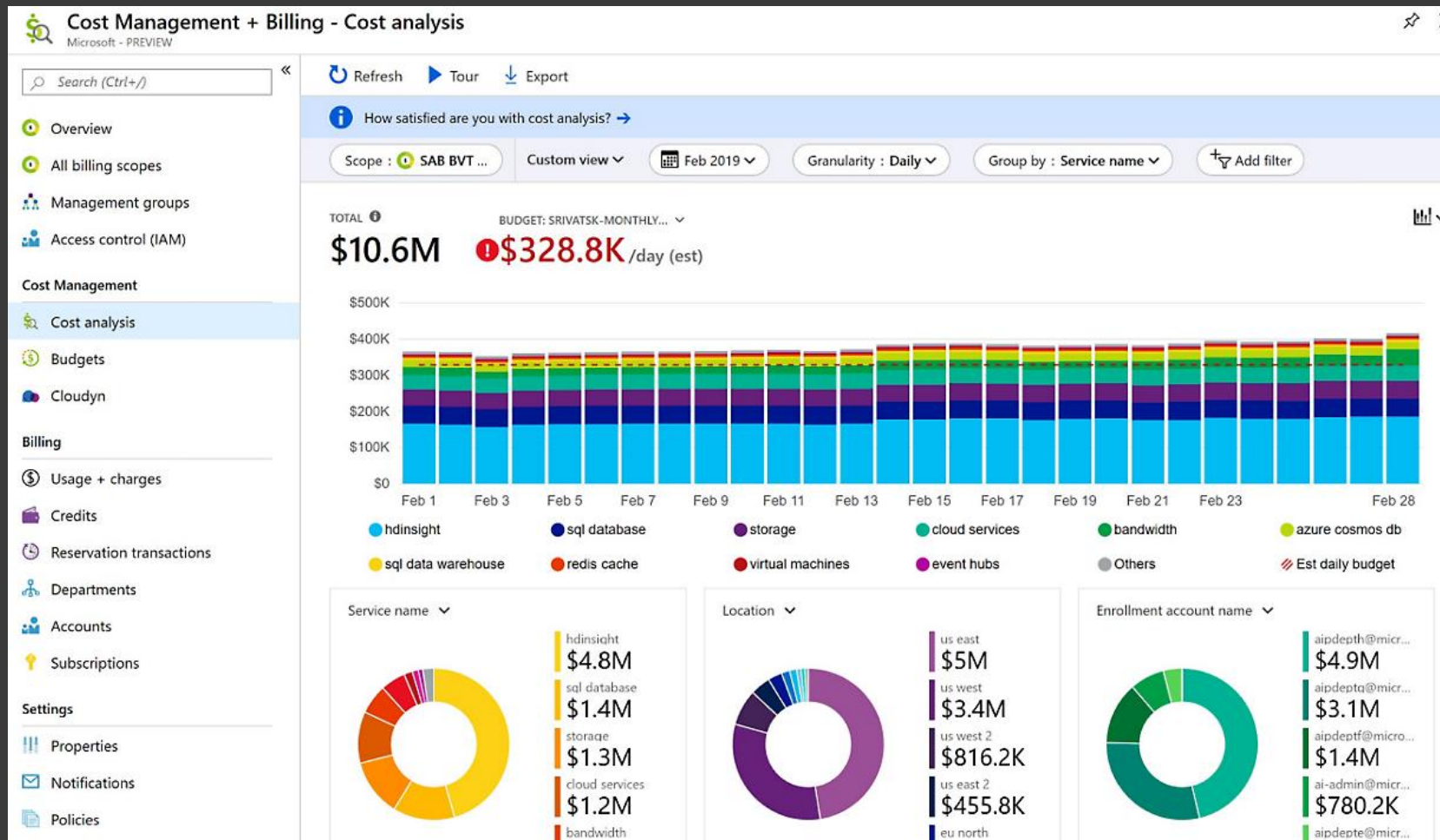
 **Functions**
Process events with serverless code

 **Batch**
Cloud-scale job scheduling and compute management

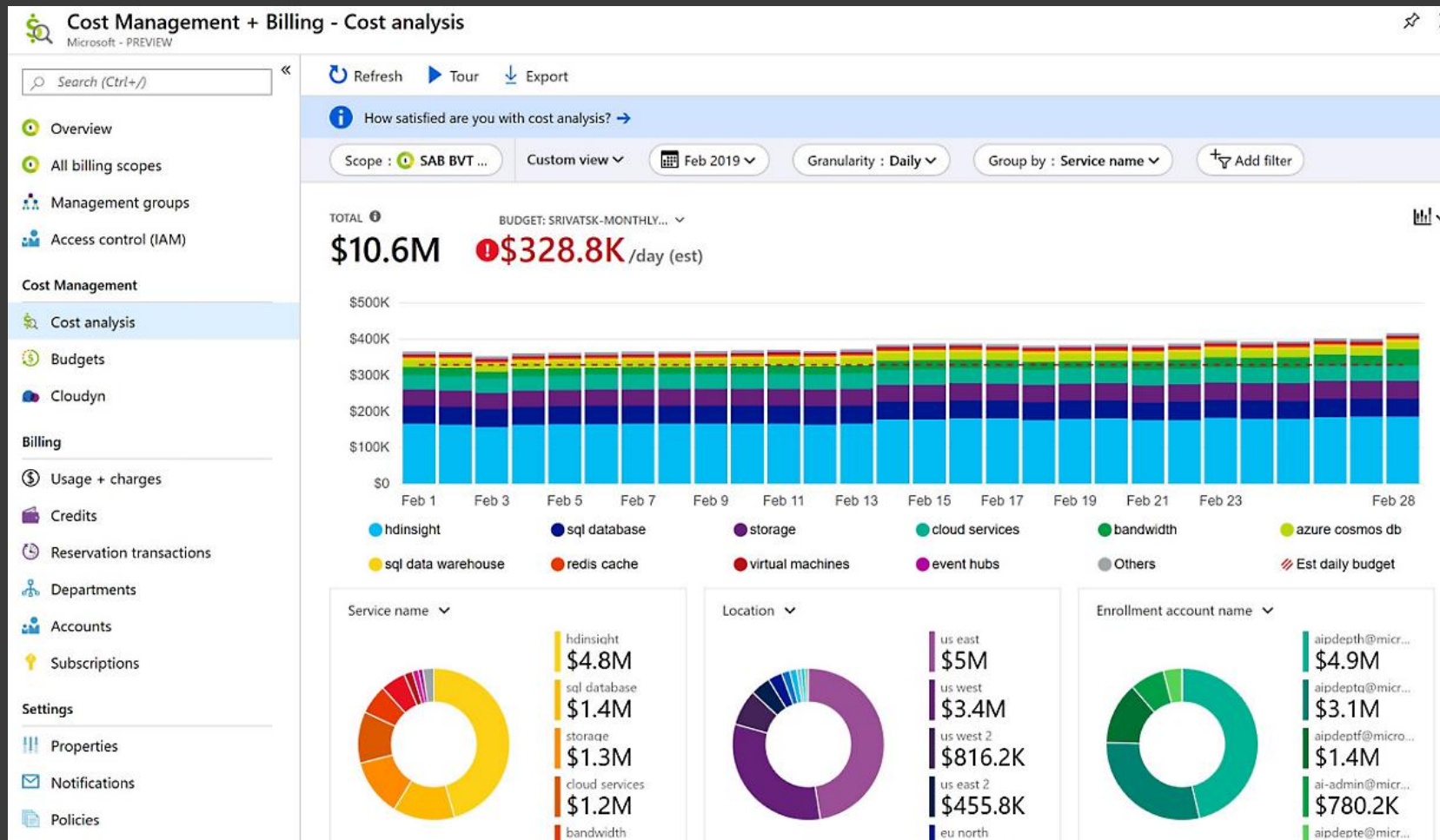
 **Service Fabric**
Develop microservices and orchestrate containers on Windows or Linux

 **Cloud Services**
Create highly-available, infinitely-scalable cloud applications and APIs

Available Tools Cost Management

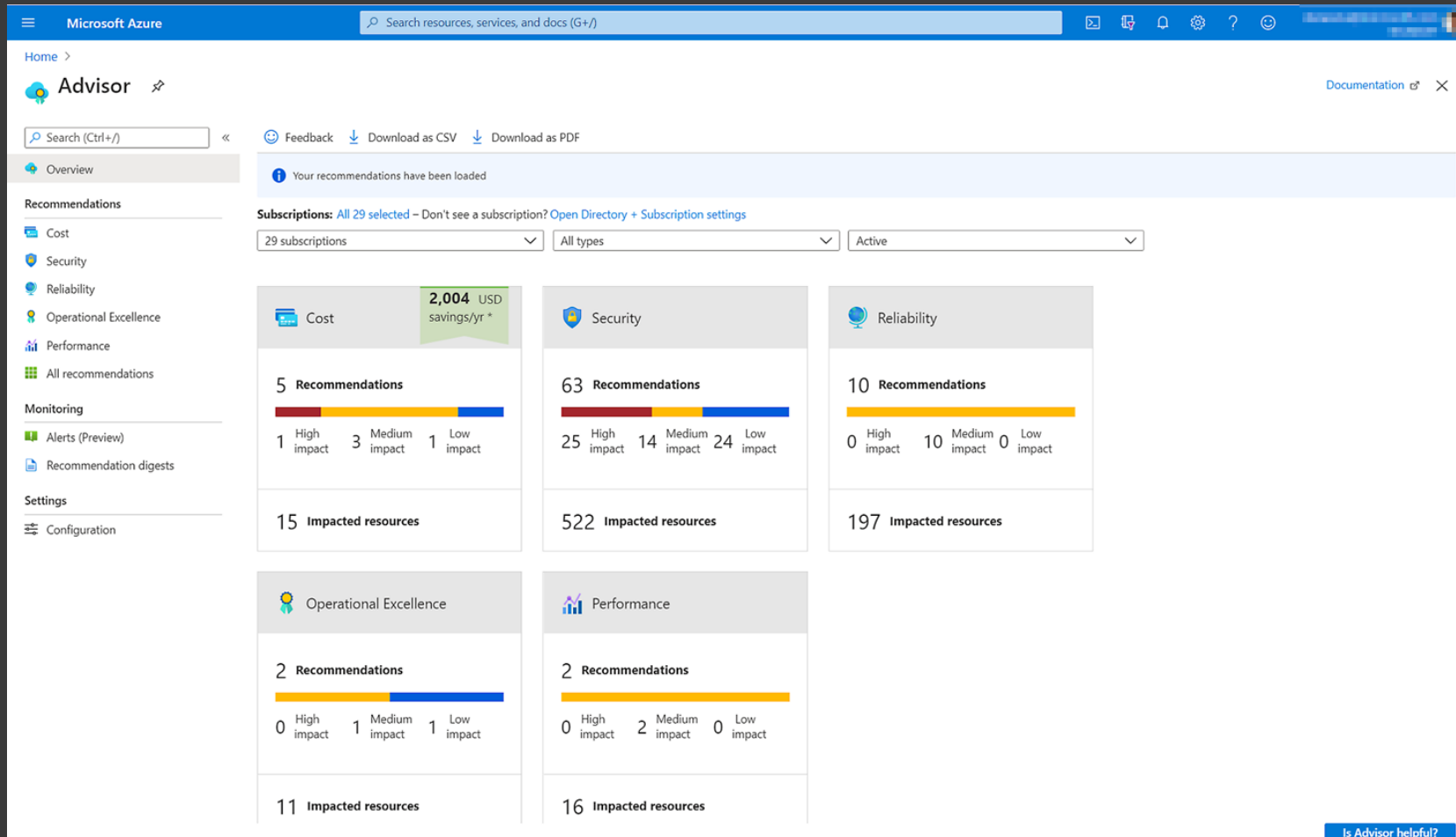


Available Tools Cost Management



Available Tools

Azure Advisor



The screenshot displays the Microsoft Azure Advisor interface. At the top, the Microsoft Azure logo and a search bar are visible. The left sidebar contains navigation links for Home, Advisor, Overview, Recommendations (Cost, Security, Reliability, Operational Excellence, Performance, All recommendations), Monitoring (Alerts (Preview), Recommendation digests), and Settings (Configuration). The main content area shows a notification that recommendations have been loaded. Below this, filters for subscriptions (29 selected), types (All types), and status (Active) are provided. The dashboard is divided into six categories, each with a bar chart showing the number of recommendations by impact level (High, Medium, Low) and the total number of impacted resources.

Category	Recommendations	Impacted resources
Cost	5 (1 High, 3 Medium, 1 Low) 2,004 USD savings/yr *	
Security	63 (25 High, 14 Medium, 24 Low)	
Reliability	10 (0 High, 10 Medium, 0 Low)	
Operational Excellence	2 (0 High, 1 Medium, 1 Low)	
Performance	2 (0 High, 2 Medium, 0 Low)	

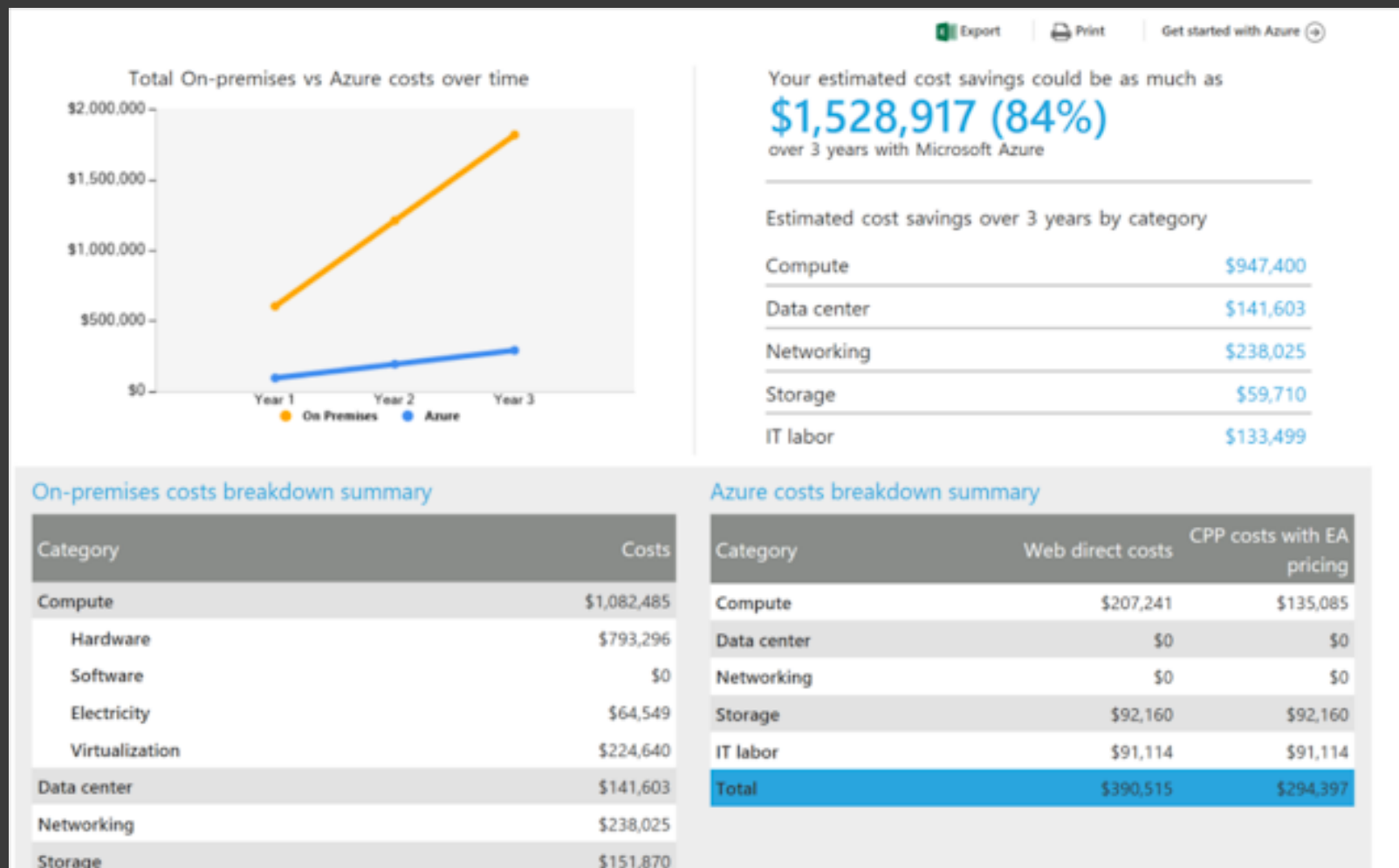
Available Tools

Part 2

Tool	Description
TCO Calculator	TCO = Total Cost of Ownership Estimate the cost savings you can realize by migrating your workloads to Azure.
Azure Hybrid Benefit Savings Calculator	Estimates the price, savings, and eligible instances you can use in Azure based on your current Software Assurance licenses. (Windows VMs, SQL Server VMs, SQL Managed Instance, and SQL Database)

Available Tools

TCO Calculator



Available Tools

Azure Hybrid Benefit Saving Calculator

Azure Hybrid Benefit Savings Calculator

[Windows Server VMs](#)[SQL Server VMs](#)[Azure SQL Managed Instance](#)[Azure SQL Database](#)

Enter the number of core licenses you own that are covered with active Software Assurance or Windows Server Subscriptions



Enter planned Azure deployment of Windows Virtual Machines

[Learn more about Windows Server instances >](#)

Region

West Europe



Instance size

D4 v2: 8 cores, 28 GB RAM, 400 GB SSD, €0.960



Hours / month

730

Eligible Virtual Machines based on instance size selection

5

Monthly estimates

Without Azure Hybrid Benefit per month €3,503.738

With Azure Hybrid Benefit per month €1,788.024

Savings across eligible Virtual Machines per month **€1,715.714**
(49.0% savings)

Annual estimates

Your estimated annual savings on Azure across all virtual machines Your estimated annual savings on Azure across all databases **€20,588.564**

Calculator is to help estimate savings range when using the Azure Hybrid Benefit for Windows Server licenses that include Software Assurance. Your actual savings may vary.

Demo

Pricing Calculator, TCO Calculator,
Hybrid Benefit Savings Calculator

Ways to Optimize

Part 1

Tool	Description
Cut out waste	A Workbook to identify resources that are no longer being used.
Azure Advisor	Analyses configurations and usage telemetry and offers personalized, actionable recommendations to help optimize resources for reliability, security, operational excellence, performance, and cost.
Spot VMs	Buy unused compute capacity at significant cost savings.

Ways to Optimize

Part 2

Tool	Description
Saving Plans	Committing an hourly spend for Azure compute resources for a one-year or three-year plan.
Azure Reservations	Help you save money by committing to one-year or three-year plans for multiple products.
Azure Hybrid Benefit	Reduce the costs of running your workloads in the cloud using your on-premises Software Assurance-enabled Windows Server and SQL Server licenses on Azure. (Licensing benefit)

Ways to Optimize

Part 3

Tool	Description
On-Demand Capacity Reservation	Enables you to reserve Compute capacity in an Azure region or an Availability Zone for any duration
Azure Reserved Capacity	Save on Azure database services by pre-committing to fully-managed services.
Software Plans	Reservation discount for deployed VMs with SUSE and RedHat software.
Dev/Test pricing	Significantly reduce the costs of ongoing dev/test workloads with discounted rates on Azure services.

Demo

Cut Out Waste, Reservation, Spot VMs,



END

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