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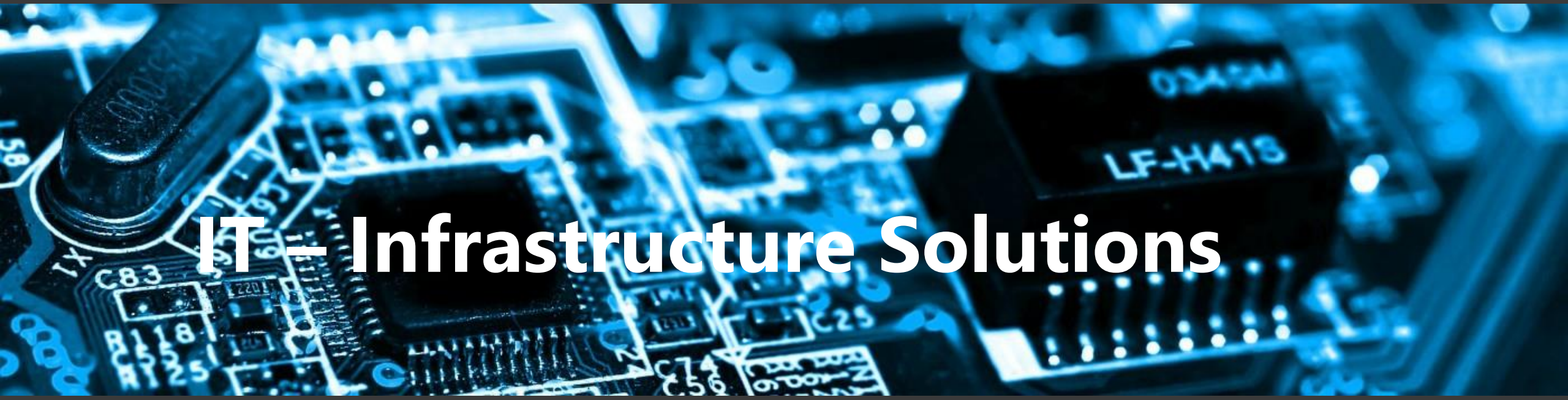

IT – Infrastructure Solutions

FinOps and Cost Optimization in Azure

Cloud Lunch & Learn Session
FinOps and Cost Optimization in Azure

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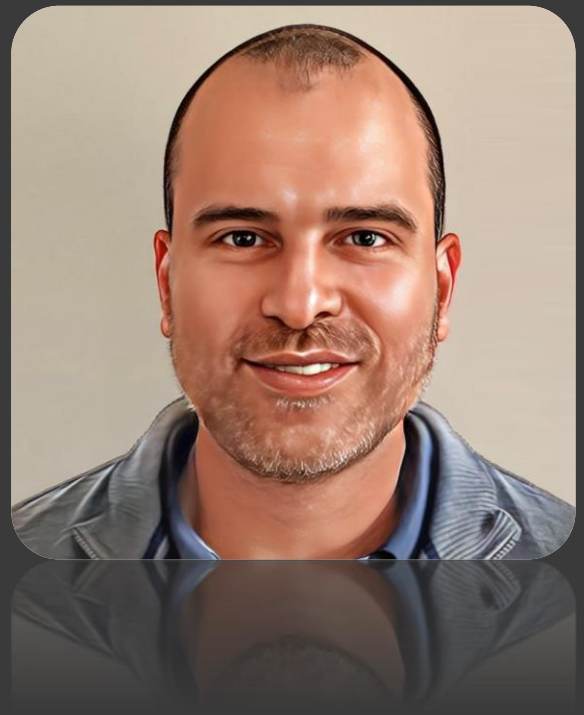

Microsoft Certified: Azure Solutions Architect Expert
Microsoft Certified: Azure Administrator Associate
Microsoft Certified: Windows Server Hybrid Administrator Associate
Microsoft Certified: Azure Network Engineer Associate
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Microsoft Certified: Azure Virtual Desktop Specialty
Microsoft Certified: Azure Data Scientist Associate
AWS Certified Solutions Architect Associate

Agenda

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

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FinOps / Cost Optimization

Why ?

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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**
- **Orpaned**
- **Abstract od Hidden Pricing**
- **No Visibility**
- **Centralized Purchases**
- **Old-School Processes**
- **CapEx-Focused**
- **IaaS – Focused**
- **No Commitments**

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FinOps / Cost Optimization Definitions

FinOps / Cost Optimization Definitions #1

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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

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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

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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.

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FinOps / Cost Optimization Principles

FinOps / Cost Optimization Principles #1

(FinOps Framework – FinOps Foundation)

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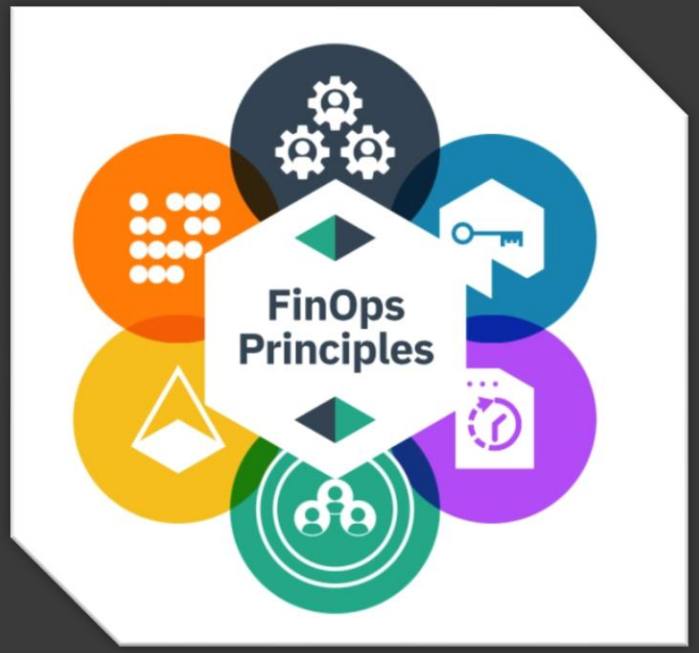

- Teams need to collaborate
- Everyone takes ownership of their cloud usage
- FinOps reports should be accessible and timely
- A centralized team drives FinOps
- Decisions are driven by the business value of cloud
- Take advantage of the variable cost model of the cloud

FinOps / Cost Optimization Principles #2

(Azure Well Architected Framework)

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

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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.

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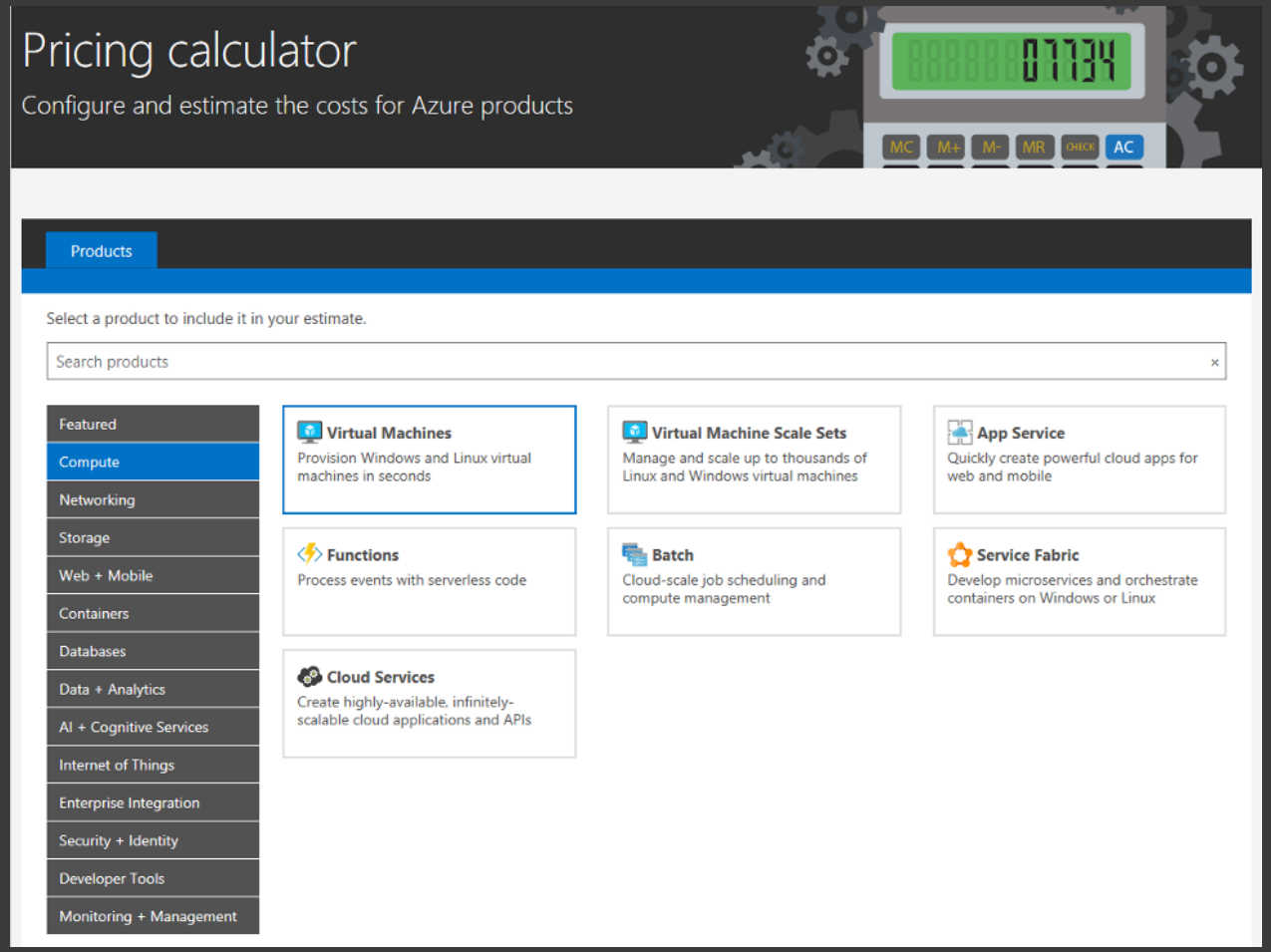
Available Tools
Pricing Calculator



Available Tools
Cost Management

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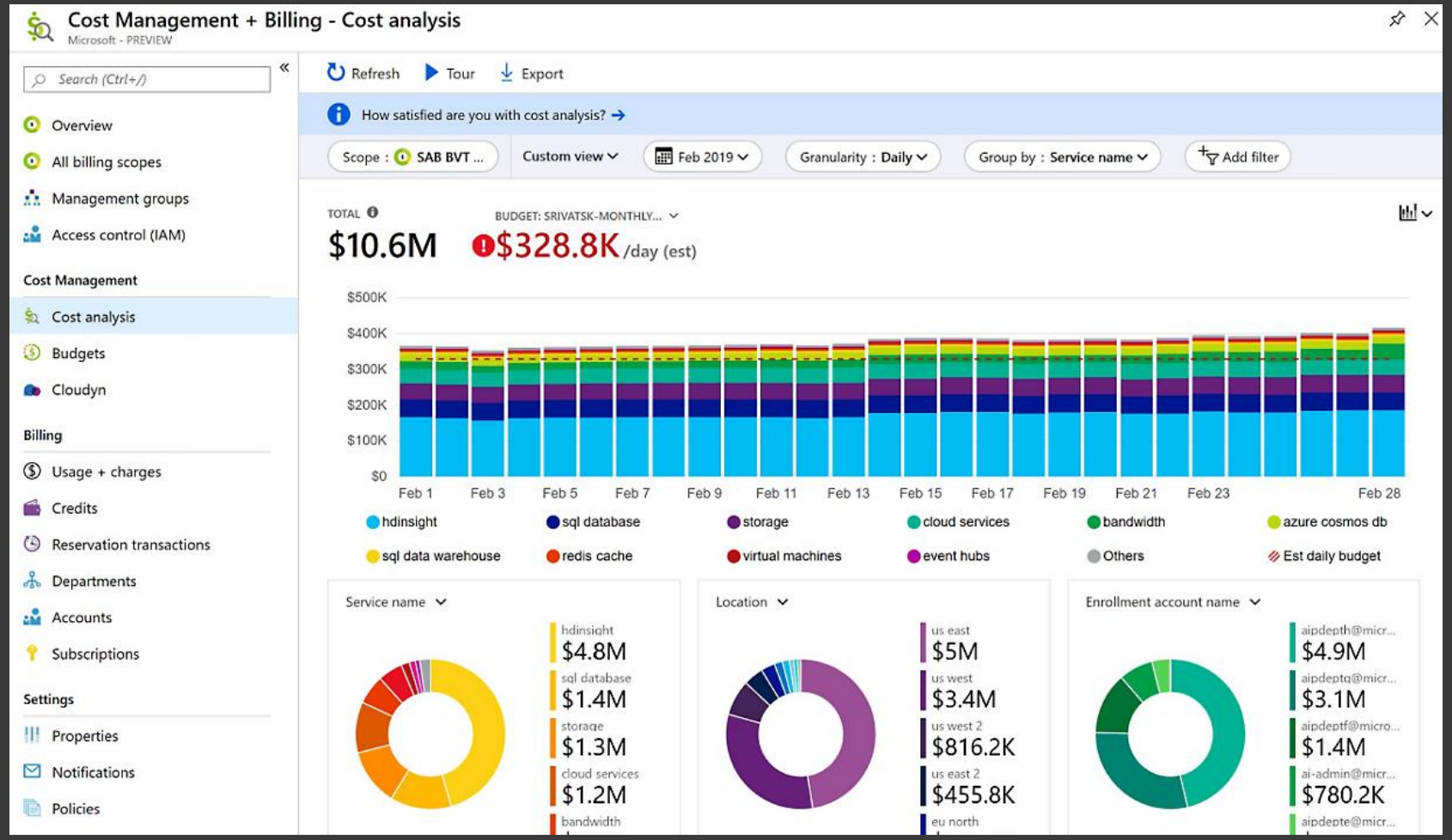

Available Tools
Cost Management

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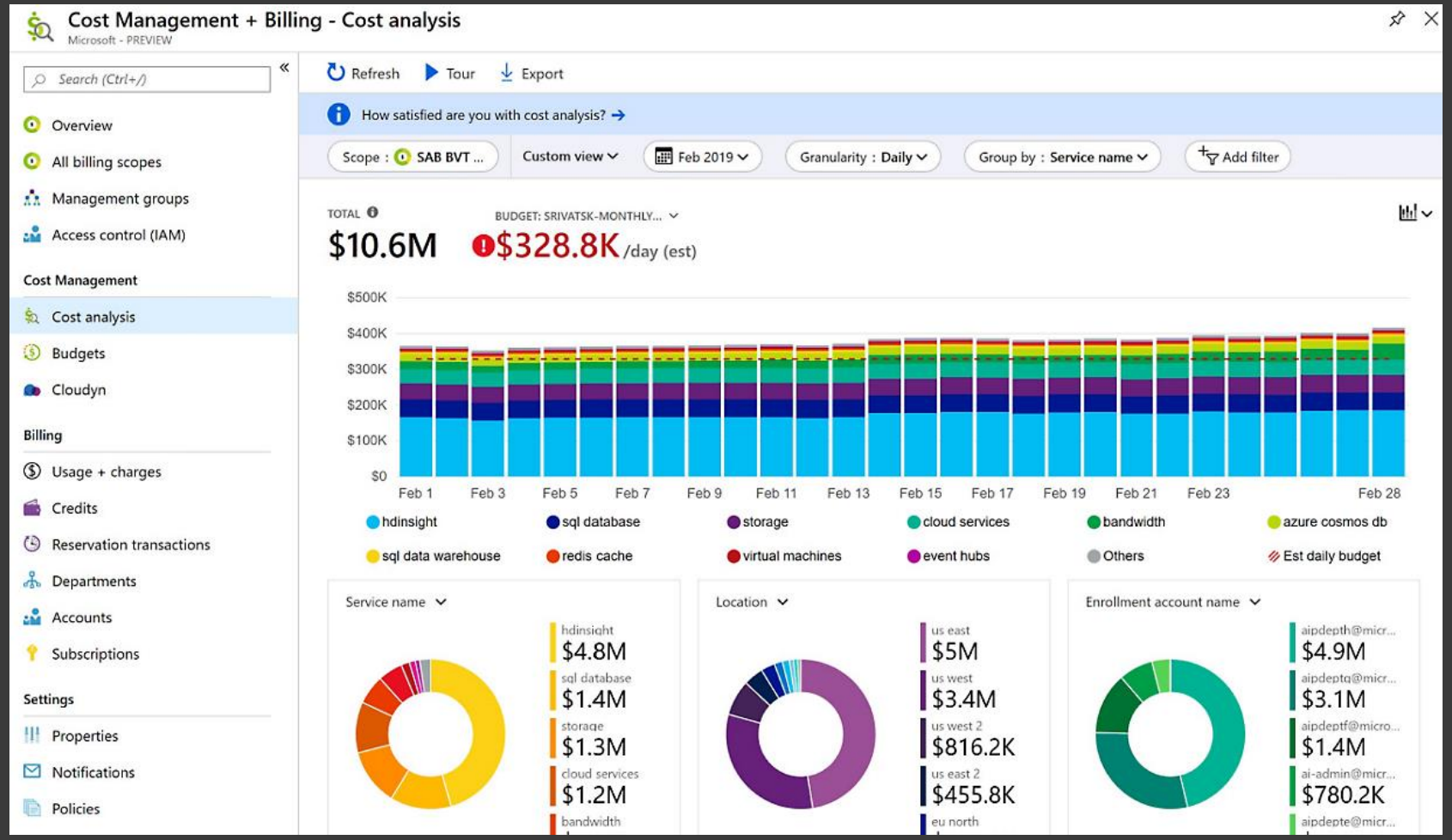

Available Tools
Azure Advisor

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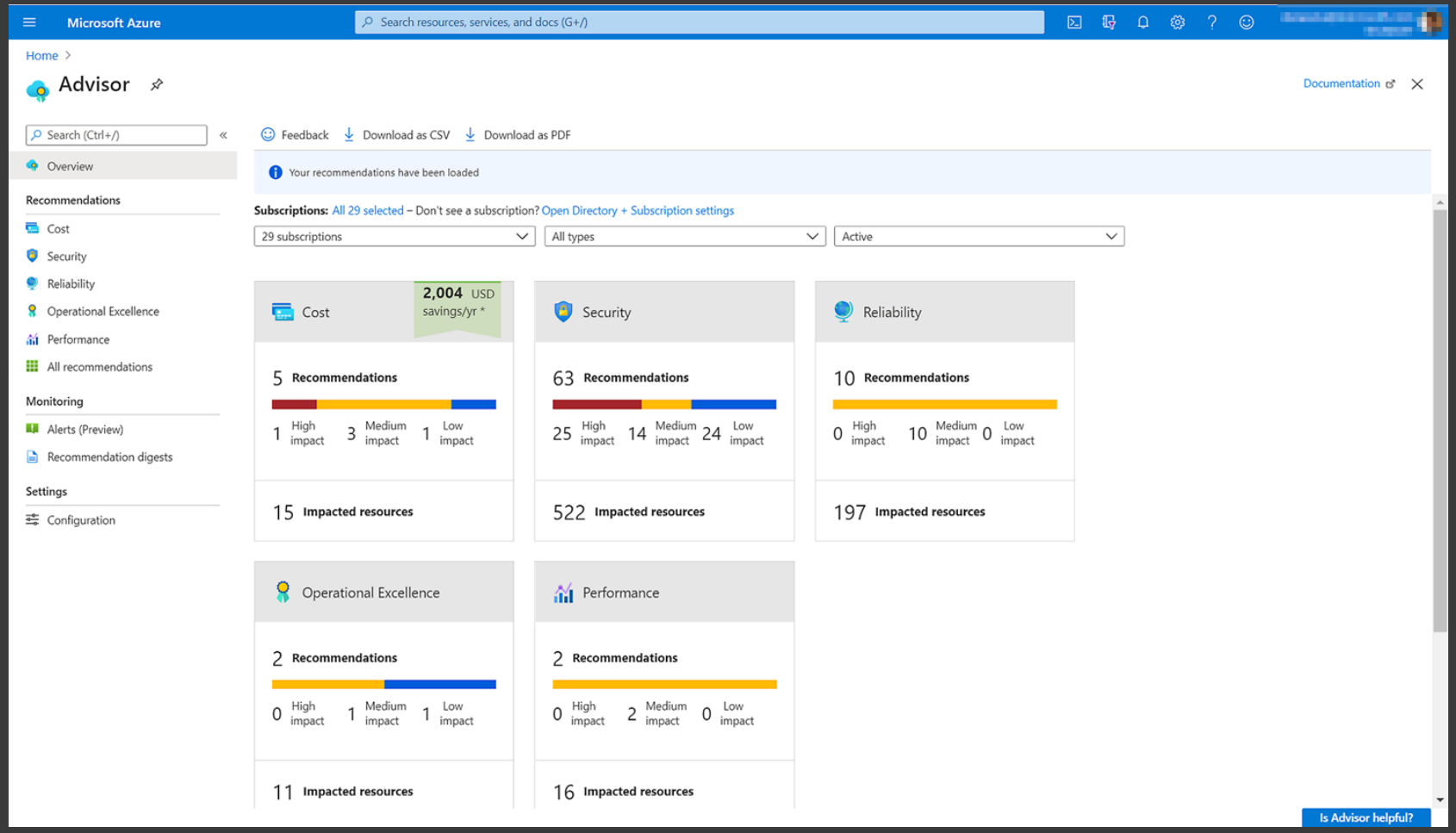

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Available Tools Part 2

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

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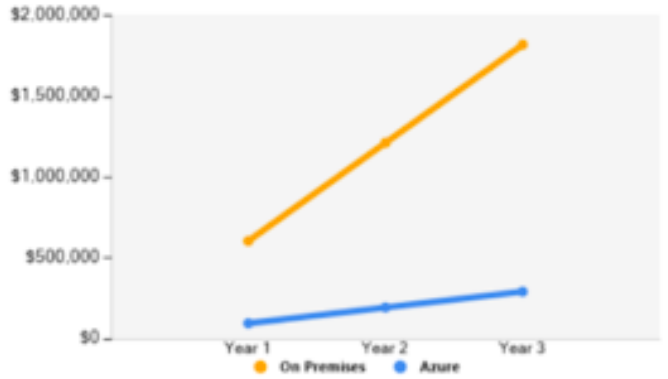
Export | Print | Get started with Azure

Total On-premises vs Azure costs over time



Your estimated cost savings could be as much as

$1,528,917 (84%)

over 3 years with Microsoft Azure

Estimated cost savings over 3 years by category

Compute	$947,400
Data center	$141,603
Networking	$238,025
Storage	$59,710
IT labor	$133,499

On-premises costs breakdown summary

Category	Costs
Compute	$1,082,485
Hardware	$793,296
Software	$0
Electricity	$64,549
Virtualization	$224,640
Data center	$141,603
Networking	$238,025
Storage	$151,870

Azure costs breakdown summary

Category	Web direct costs	CPP costs with EA pricing
Compute	$207,241	$135,085
Data center	$0	$0
Networking	$0	$0
Storage	$92,160	$92,160
IT labor	$91,114	$91,114
Total	$390,515	$294,397

Available Tools
Azure Hybrid Benefit Saving Calculator

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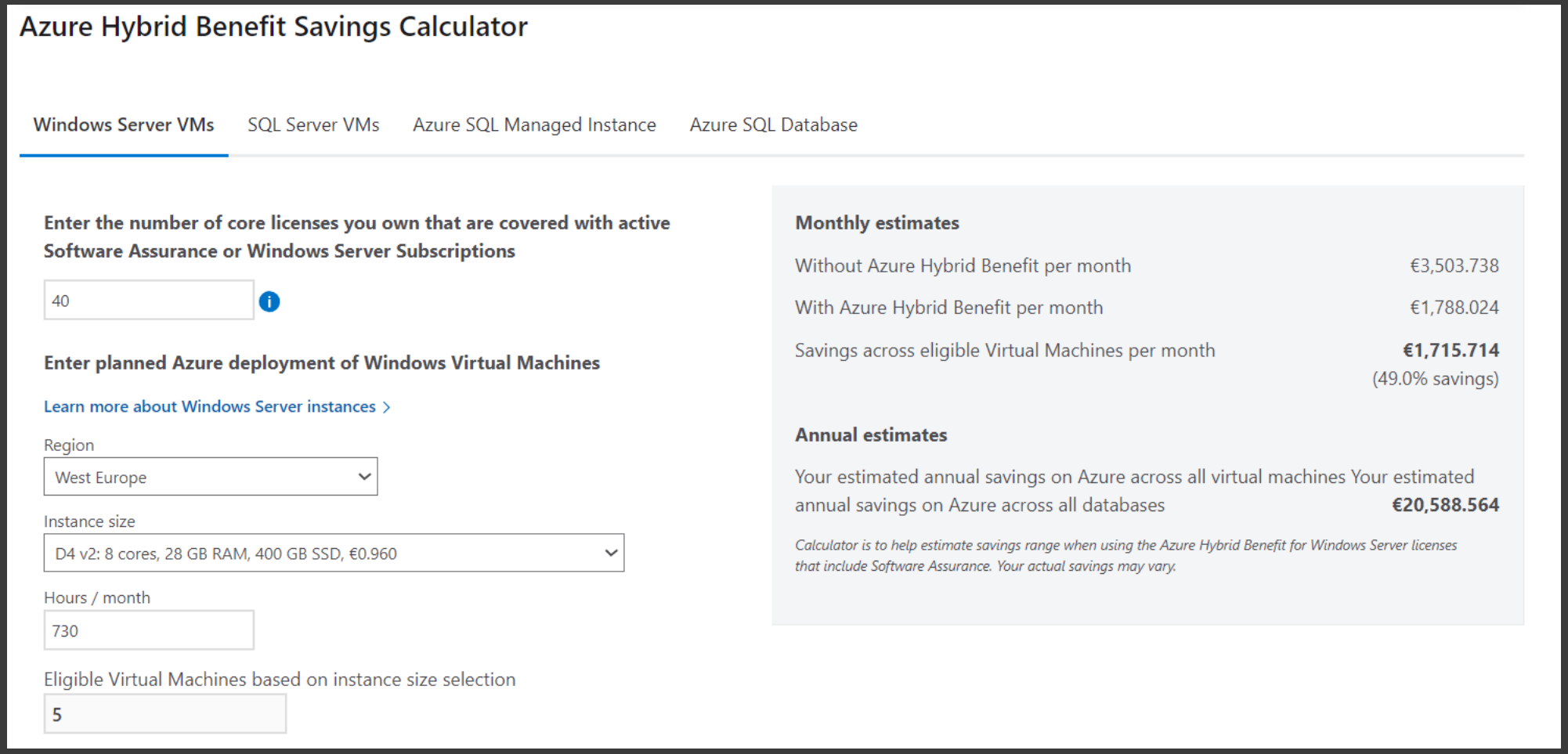

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Demo

Pricing Calculator, TCO Calculator,
Hybrid Benefit Savings Calculator

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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.

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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)

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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.

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Demo

Cut Out Waste, Reservation, Spot VMs,

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