

 European
SharePoint
Office 365 & Azure
Conference



COPENHAGEN
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NOVEMBER



Azure Cost Management Optimise Azure Costs

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Who is this guy?

Nico Martens
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Agenda



What do you need?



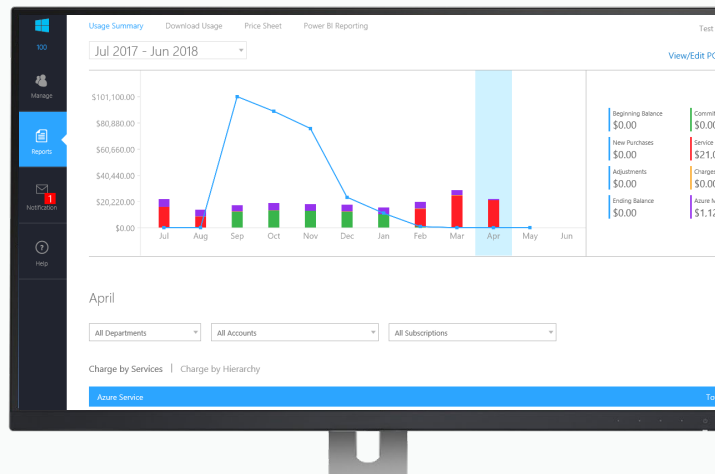
Cost Visibility



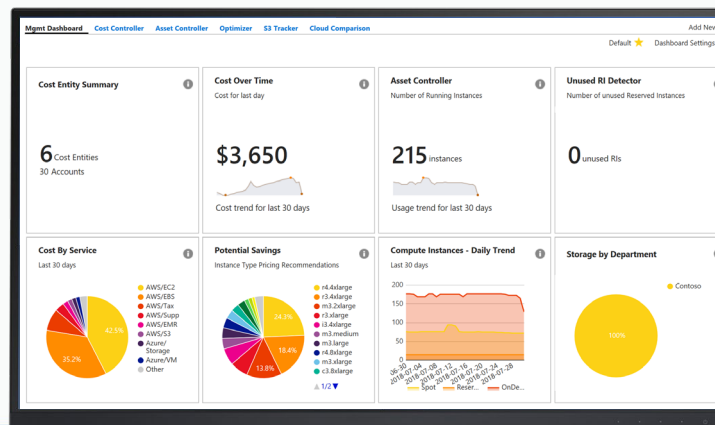
Bring the best together in Azure Portal

Public
Preview

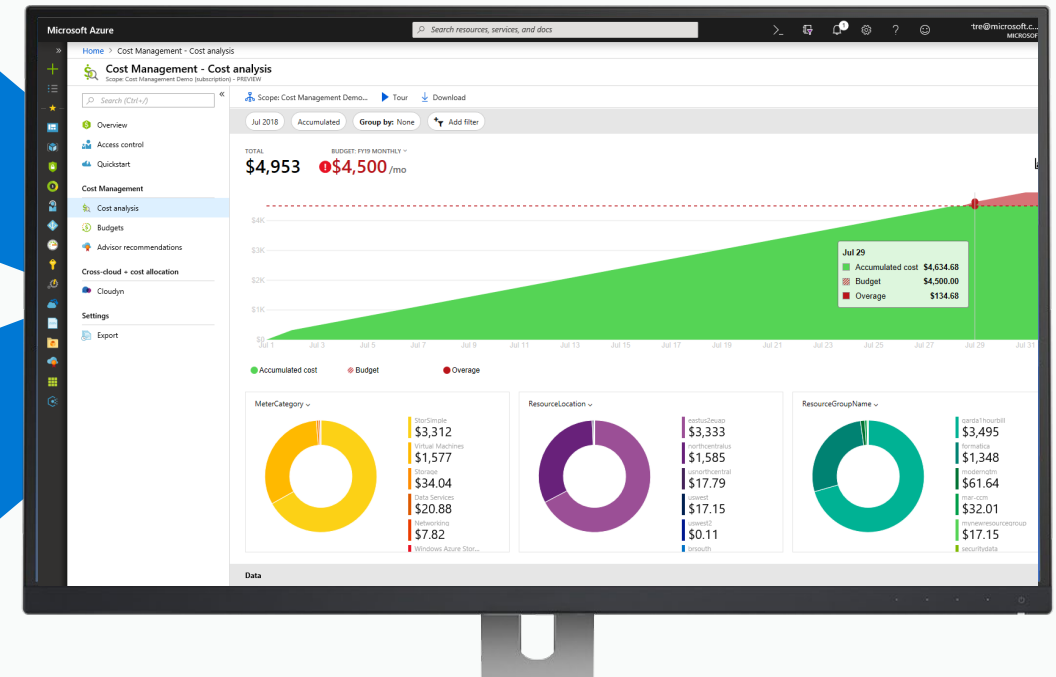
Enterprise Portal



Cost Management By Cloudyn

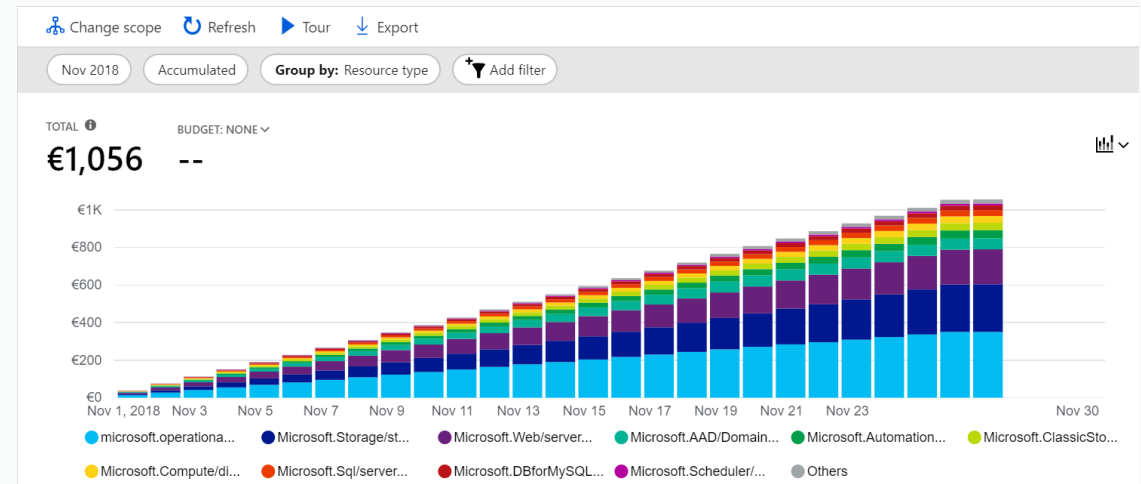


Azure Cost Management



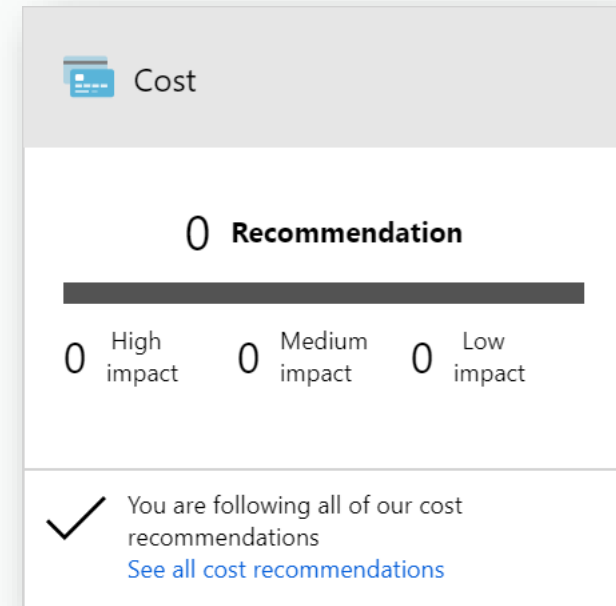
Cost analysis

- Analyze your **cloud** costs from 1 dashboard
- Filter and group by:
 - Date
 - Type of resource
- Export data

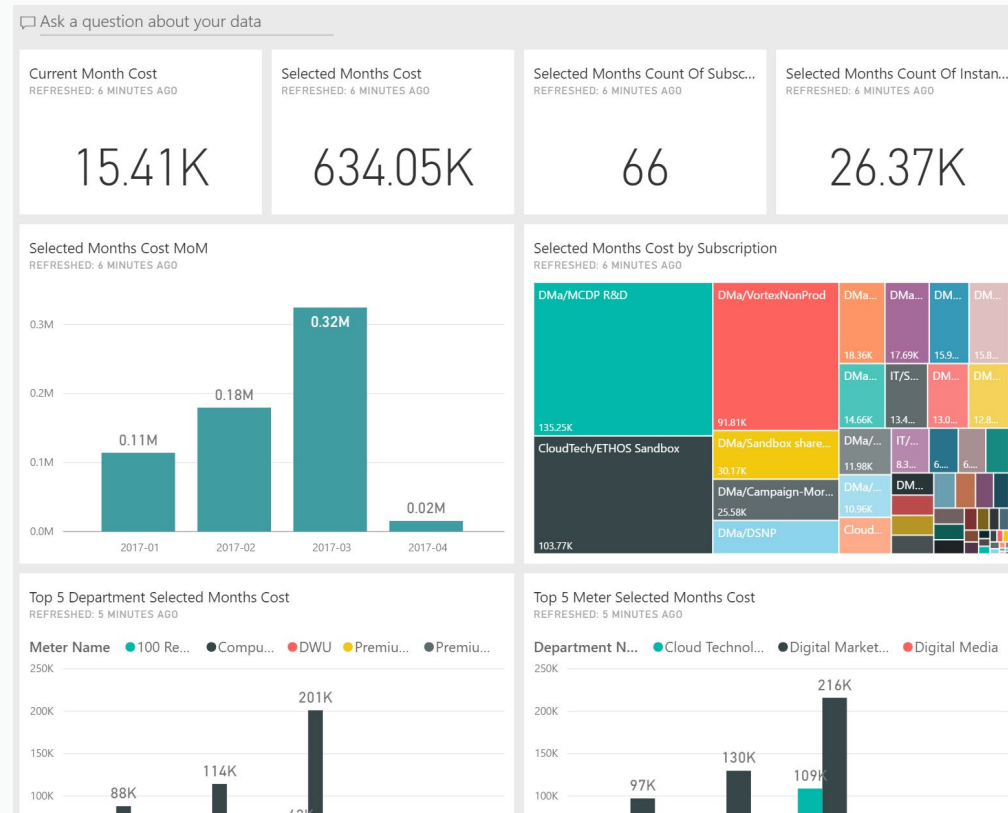


Cost recommendations

- Get recommendations based on Out-of-the-box rules
- You can change the rules !
- Remember: It is still in preview



Power BI



<https://docs.microsoft.com/en-us/power-bi/desktop-connect-azure-consumption-insights>

Cost Management roadmap

Q3 2018

- Cost Analysis and Budgets for EA
- EA Billing Accounts in Portal
- Updated PowerBI pack
- New and updated ARM APIs

Q4 2018

- Improved VM right-sizing recommendations
- Pay As You Go / Web Direct support
- AWS cross-cloud support

2019

- Markup and Chargeback
- Azure CSP support
- Fill out cross-cloud support

2018

OCT

NOV

DEC

2019

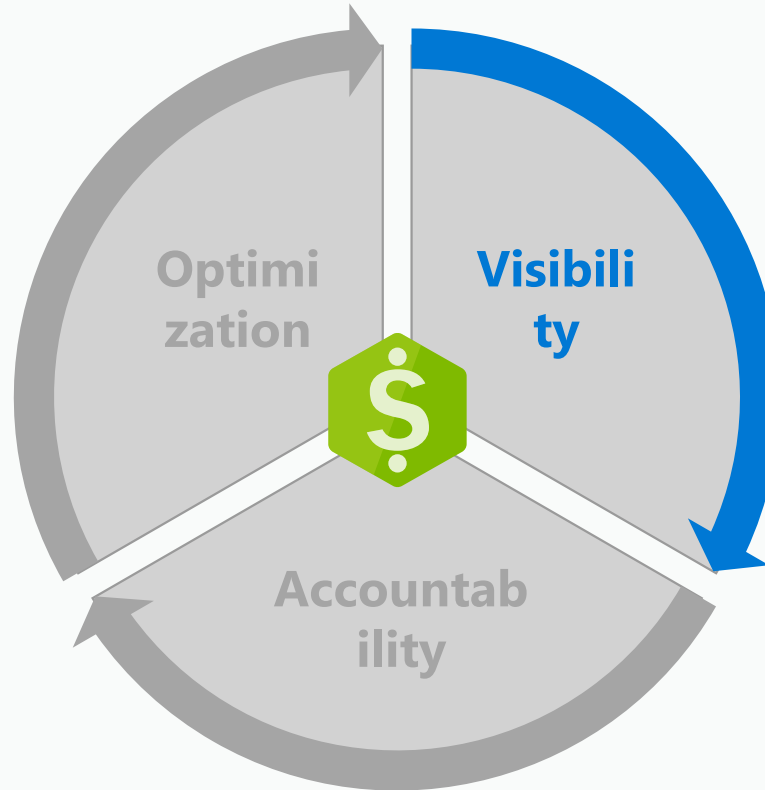
Enterprise Portal
&
Cloudyn

Azure Cost Management



Free for Azure

Cost Visibility - Demo

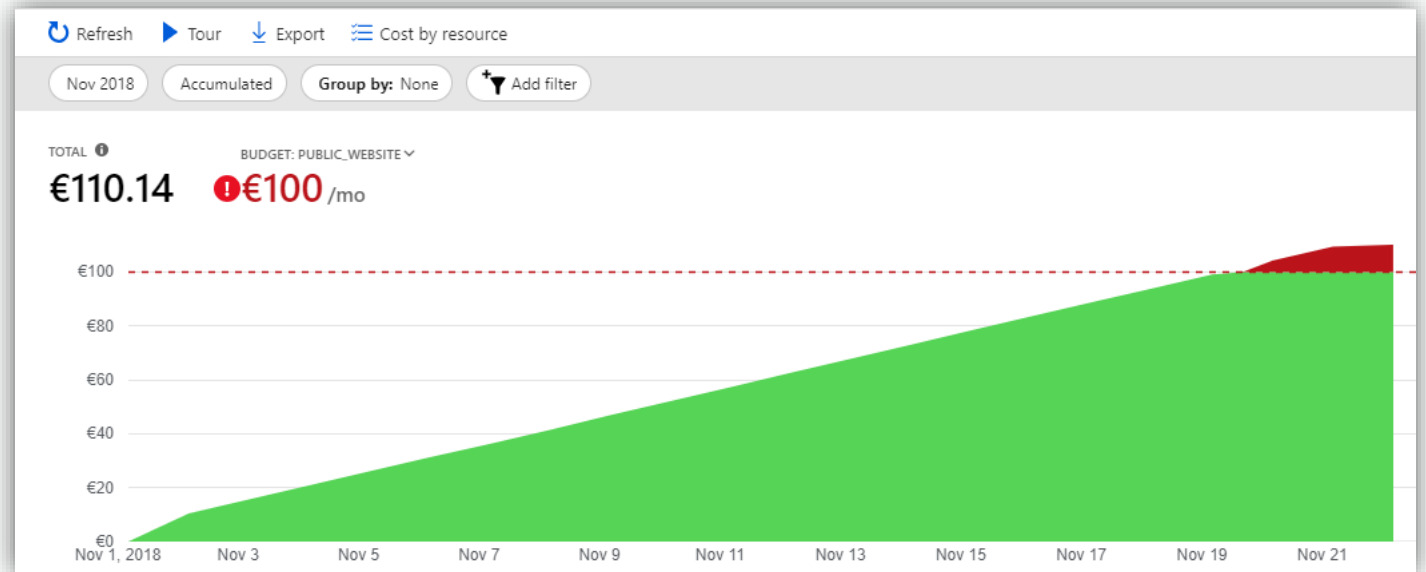


Cost Accountability



Budgets

- Monitor costs in a particular subscription
- Send notification when reaching threshold
- Action groups



+ Add Refresh

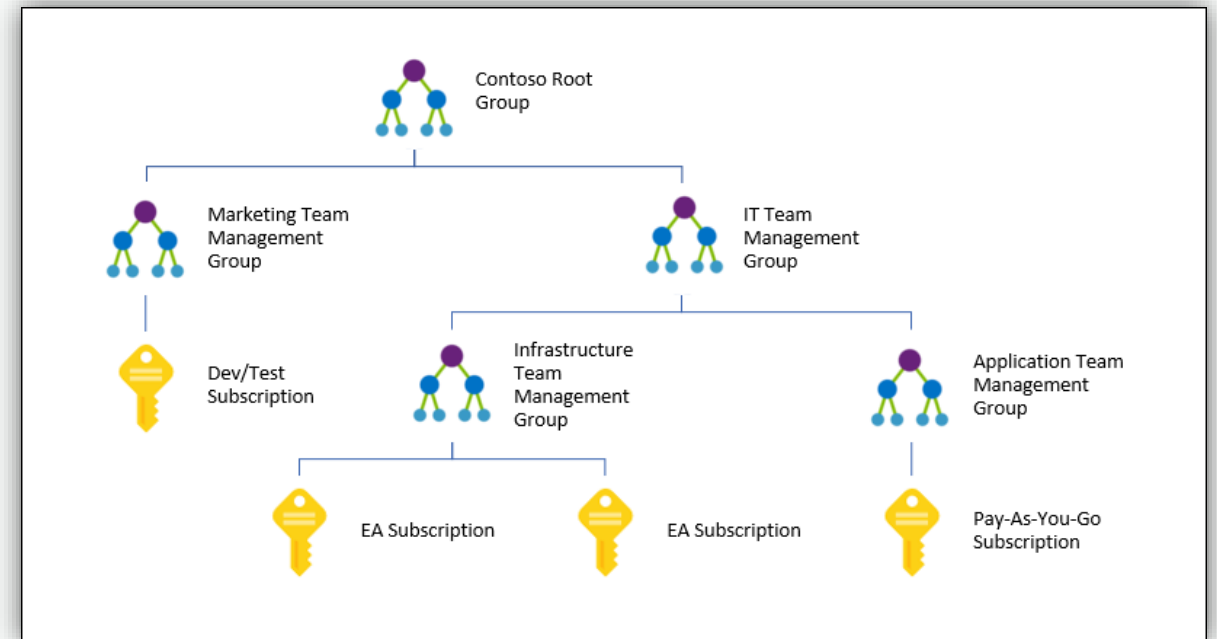
Budgets feature is currently in preview.

Search by name All periods

NAME	SCOPE	RESET PE...	START D...	END DATE	BUDGET	CURRENT COST	PROGRESS
Public_website	0e53ea36-1bce-...	Monthly	1-11-2018	31-10-2020	€ 500,00	€ 105,47	21,09%
Blog_Quarterly	0e53ea36-1bce-...	Quarterly	1-11-2018	31-10-2020	€ 1.200,00	€ 105,47	8,79%

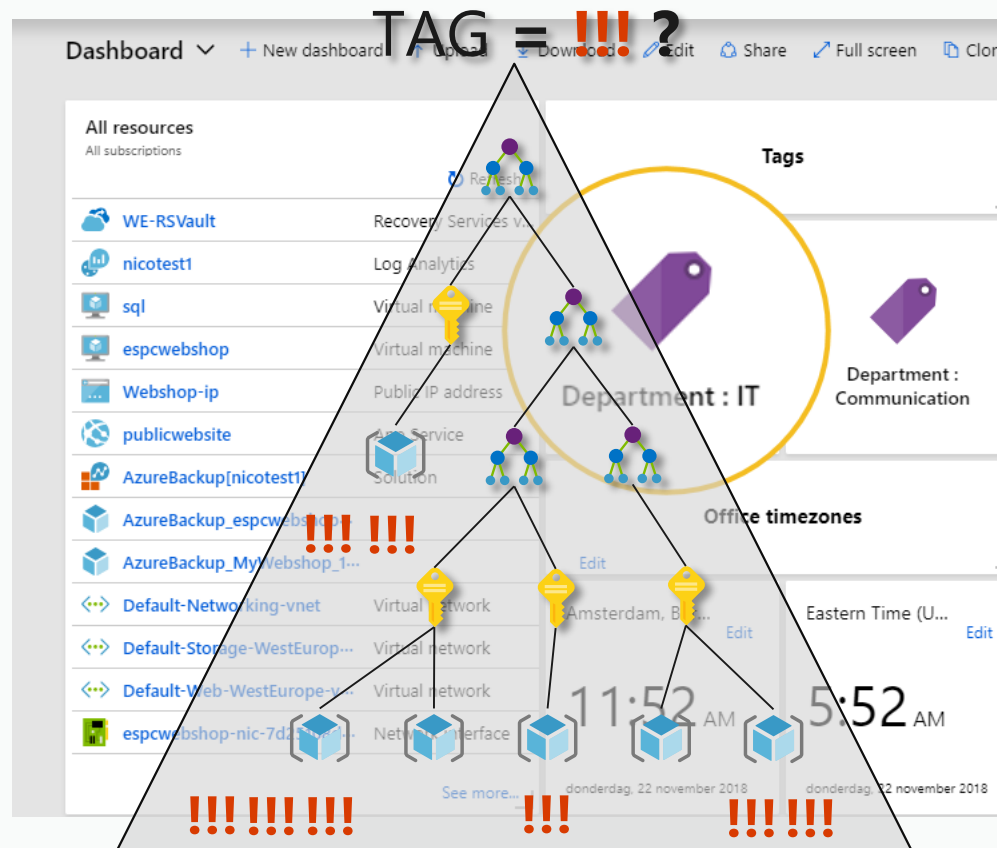
Management Groups

- Logical representation for your organization
- Governance over subscriptions
- Set conditions by applying policies



Tags

Any resource can be “tagged” to organize Azure resources



Policies

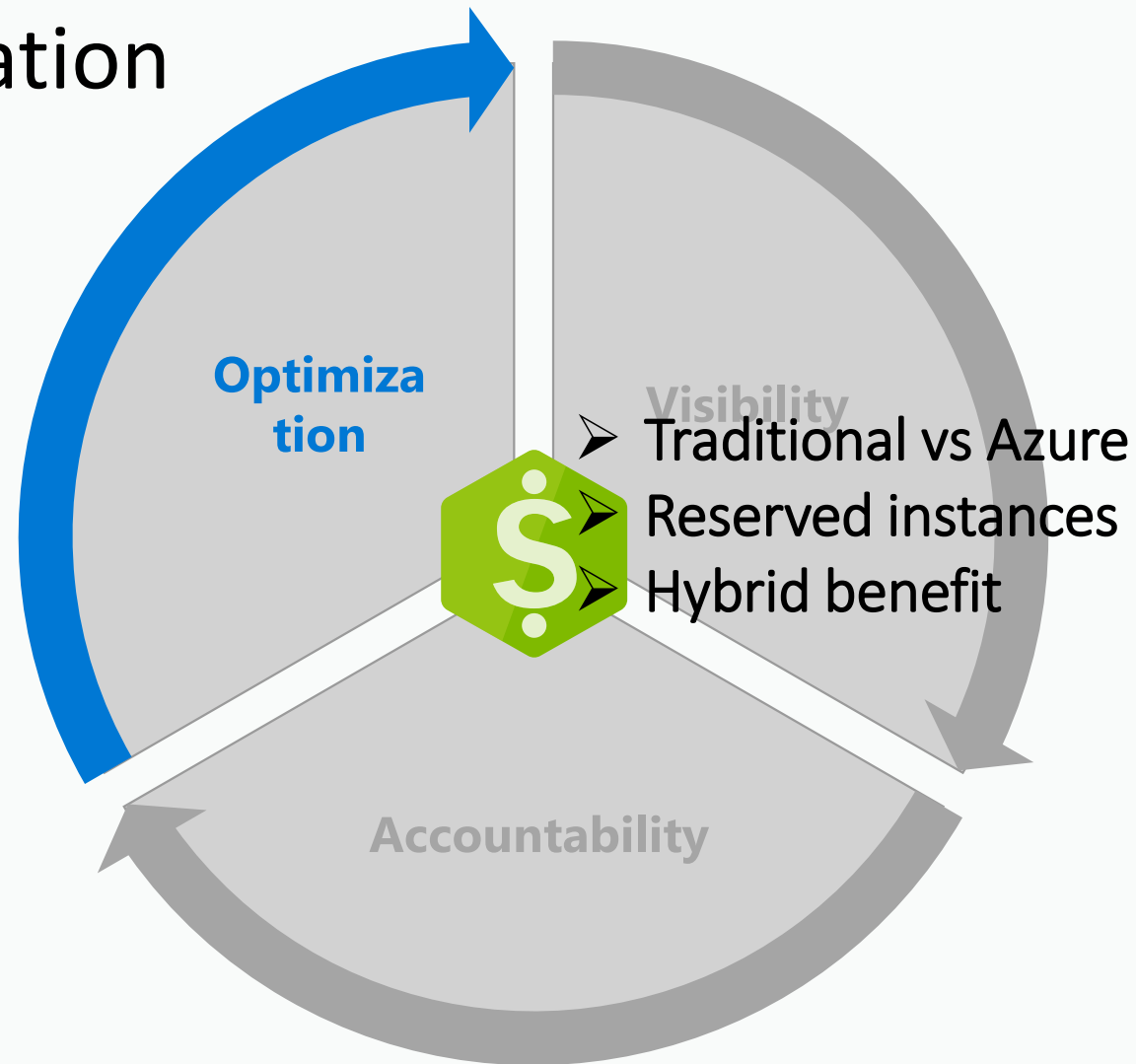
- Enforce rules defined by your organization
- Policy definitions (JSON)
- Policy assignments

NAME	
[Preview]: Audit accounts with owner permissions who are not MFA enabled on ...	
[Preview]: Audit accounts with read permissions who are not MFA enabled on a s...	
[Preview]: Audit accounts with write permissions who are not MFA enabled on a ...	
[Preview]: Audit application inside Windows VMs must be present	
[Preview]: Audit Dependency Agent Deployment - VM Image (OS) unlisted	
[Preview]: Audit Dependency Agent Deployment in VMSS - VM Image (OS) unlis...	
[Preview]: Audit deprecated accounts on a subscription	
[Preview]: Audit deprecated accounts with owner permissions on a subscription	
[Preview]: Audit external accounts with owner permissions on a subscription	
[Preview]: Audit external accounts with read permissions on a subscription	
[Preview]: Audit external accounts with write permissions on a subscription	
[Preview]: Audit Linux VM /etc/passwd file permissions are set to 0644	
[Preview]: Audit Linux VM accounts with no passwords	
[Preview]: Audit Linux VM allowing remote connections from accounts with no p...	
[Preview]: Audit Log Analytics Agent Deployment - VM Image (OS) unlisted	
[Preview]: Audit Log Analytics Agent Deployment in VMSS - VM Image (OS) unli...	
[Preview]: Audit Log Analytics Workspace for VM - Report Mismatch	
[Preview]: Audit maximum number of owners for a subscription	
[Preview]: Audit minimum number of owners for subscription	
[Preview]: Audit missing blob encryption for storage accounts	
[Preview]: Audit web servers inside Windows VMs must use TLS minimum versio...	
[Preview]: Audit Windows VM enforces password complexity requirements	
[Preview]: Audit Windows VM maximum password age 70 days	
[Preview]: Audit Windows VM minimum password age 1 day	
[Preview]: Audit Windows VM passwords must be at least 14 characters	
[Preview]: Audit Windows VM should not allow previous 24 passwords	
[Preview]: Audit Windows VM should not store passwords using reversible encry...	
[Preview]: Deploy Dependency Agent for Linux VM Scale Sets (VMSS)	
[Preview]: Deploy Dependency Agent for Linux VMs	
[Preview]: Deploy Dependency Agent for Windows VM Scale Sets (VMSS)	
[Preview]: Deploy Dependency Agent for Windows VMs	
[Preview]: Deploy Log Analytics Agent for Linux VM Scale Sets (VMSS)	

Cost Visibility - Demo

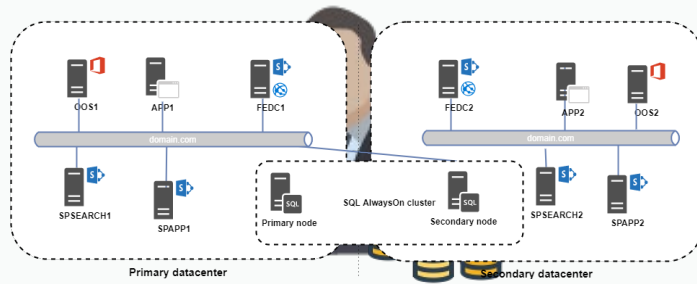


Cost Optimization

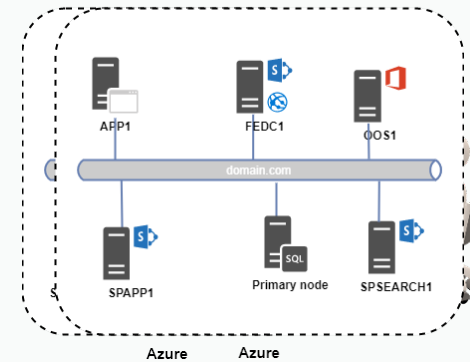


Traditional vs Azure

On-Premises



Azure



Traditional vs Azure

Responsibility	On-Prem	IaaS	PaaS	SaaS
Data classification & accountability	Cloud Customer	Cloud Customer	Cloud Customer	Cloud Customer
Client & end-point protection	Cloud Customer	Cloud Customer	Cloud Customer	Cloud Customer / Cloud Provider
Identity & access management	Cloud Customer	Cloud Customer	Cloud Customer / Cloud Provider	Cloud Customer / Cloud Provider
Application level controls	Cloud Customer	Cloud Customer	Cloud Customer / Cloud Provider	Cloud Provider
Network controls	Cloud Customer	Cloud Customer / Cloud Provider	Cloud Provider	Cloud Provider
Host infrastructure	Cloud Customer	Cloud Customer / Cloud Provider	Cloud Provider	Cloud Provider
Physical security	Cloud Customer	Cloud Provider	Cloud Provider	Cloud Provider
	Cloud Customer	Cloud Customer / Cloud Provider	Cloud Provider	Cloud Provider

Reserved Instances

➤ Reserve capacity for 1 or 3 years for massive discounts

BASICS

* Name: D4s ✓

Subscription: Portiva Blog (intern) ▼

Scope: ☐ Shared ☒ Single subscription

DETAILS

* Region: West Europe

* VM size: D4s v3 (4 vCPUs, 16 GB)

* Optimize for: ☒ Instance size flexibility ☐ Capacity priority

Term: **One year**

* Quantity: 1 ✓

COSTS

Cost per VM	1,129
Total VMs	1
Reservation cost*	1,129
Estimated savings*	36%

BASICS

* Name: D4s ✓

Subscription: Portiva Blog (intern) ▼

Scope: ☐ Shared ☒ Single subscription

DETAILS

* Region: West Europe

* VM size: D4s v3 (4 vCPUs, 16 GB)

* Optimize for: ☒ Instance size flexibility ☐ Capacity priority

Term: **Three years**

* Quantity: 1 ✓

COSTS

Cost per VM	2,333
Total VMs	1
Reservation cost*	2,333
Estimated savings*	56%

Save up to **80%** with RIs and Azure Hybrid Benefit

Pay-as-you-go	Azure RIs	RIs + Azure Hybrid Benefit
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Hybrid benefit

- A.k.a. Bring your own license (BYOL)
- Works for:
 - Windows Server
 - SQL Server VMs
 - SQL Database

NAME	PUBLISHER	CATEGORY
SQL Server 2017 Standard on Windows Server 2016	Microsoft	Virtual Machine Images
SQL Server 2017 Enterprise Windows Server 2016	Microsoft	Recommended
SQL Server 2017 Web on Windows Server 2016	Microsoft	Virtual Machine Images
{BYOL} SQL Server 2017 Standard on Windows Server 2016	Microsoft	Virtual Machine Images

Hybrid benefit

- Switching from PAYG to BYOL:

```
$vm = Get-AzureRmVM -ResourceGroup "<rg name>" -Name "<vm name>"  
$vm.LicenseType = "Windows_Server"  
Update-AzureRmVM -ResourceGroupName <rg-name> -VM $vm
```

- Only works for Windows Server license

Recap



Cost Management

- Enterprise portal
- Cloudyn
- Advisor

Recap



- Budgets
- Tags
- Management groups
- Policies

Recap



- Rethink architecture
- Reserved instances
- Hybrid benefit (BYOL)

Questions?

Rate this session: T34

Connect:



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<https://sharepointrelated.com>

