

16 APRILE 2021



VIRTUAL EVENT

AZURE GOVERNANCE: FROM ZERO TO HERO



FRANCESCO MOLFESE

@FRANCESCO MOLF

SPONSOR



managed/designs

il partner tecnologico per chi ha idee ambiziose. Innovazione pratica da 15 anni.



empower every person and every organization on the planet to achieve more.

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Swag and more

- Claim your attendee Learner Badge here:
- 30 Days to learn it: aka.ms/global-azure/30D2L
- Virtual background and ANOTHER Badge: blog.globalazure.net/Swag

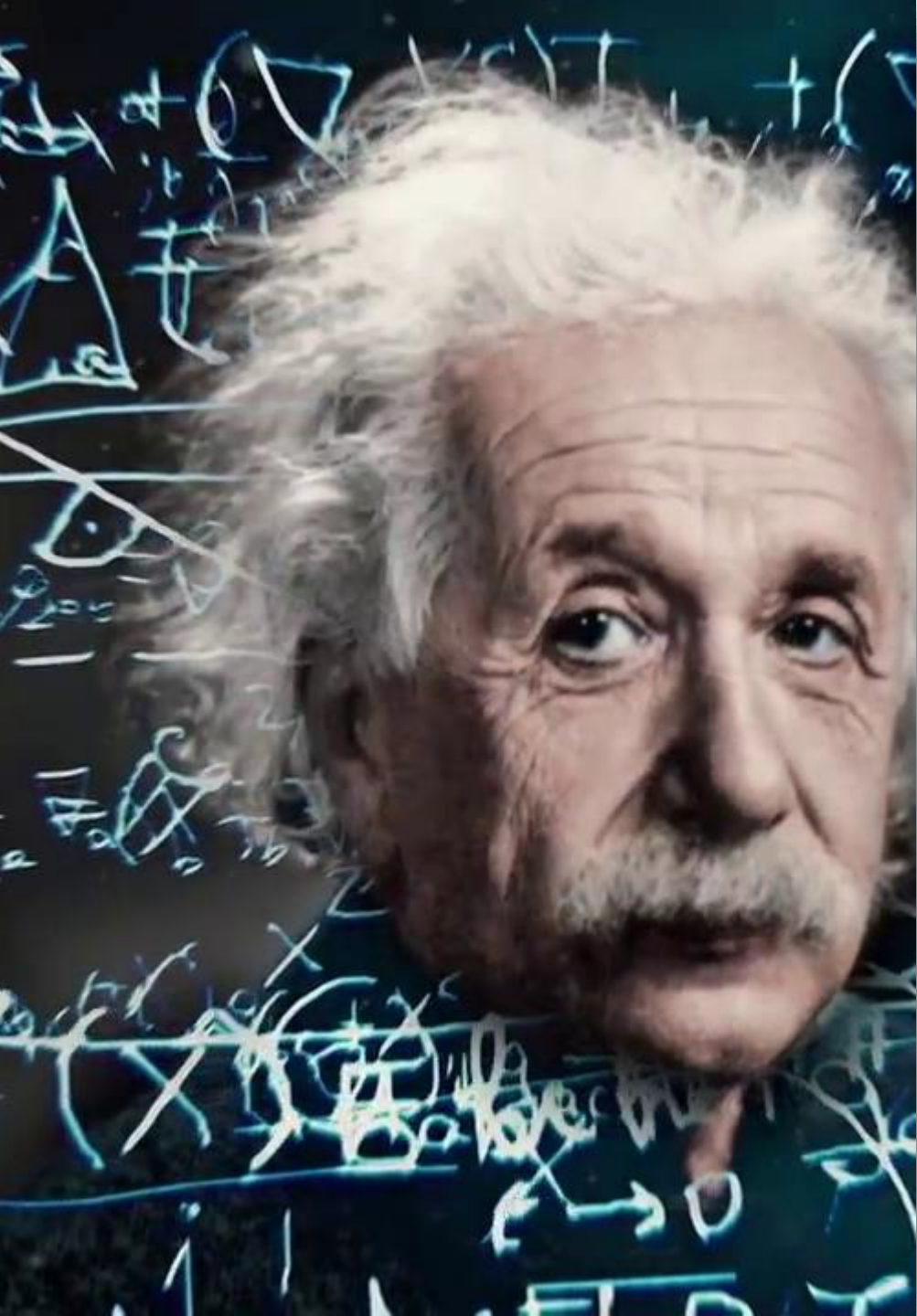


The speaker

Francesco Molfese

- Cloud Infrastructure Director in  **4WARD PRO**
impresoftgroup
- Microsoft MVP Cloud Datacenter Management 
- Microsoft Certified Trainer **MCT**
- Community Lead della Cloud Community Italiana
(www.cloudcommunity.it)





Insanity

is doing the same thing over and over again and expecting a different result.

”

Albert Einstein

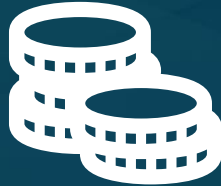


Public Cloud: a double-edged sword



Self service

Delegation could lead to a complete lack of control



Consumption based billing

Everything is billed per consumption. This self service and scalability could lead to bill shocks



Flexibility & scalability

Self service, flexibility, hundreds of solutions, hybrid connectivity open up new security threats



Compliance

While the Cloud provider has tens of certifications, new technologies and solutions could be hard to reconcile with compliance requirements

Cloud Technical Governance

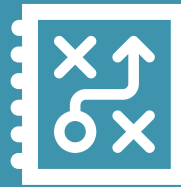
- Cost management and predictive model
- Security baseline and compliance
- Identity Baseline
- Deployment Acceleration
- Resource Consistency



Embracing the cloud with governance!



Designing the «right»
architecture on azure is a
moving target



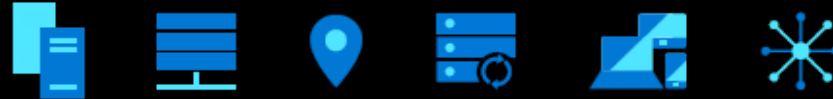
The challenge is evolving
and optimizing the
architecture while



... Keeping the costs
as low as possible

The Journey...

Diverse infrastructure



Design & standardize

- Azure Cloud Adoption Framework
- Azure Blueprints

Keep consistent

- Azure policies

Keep secure & compliant

- Azure Security Center

Keep optimized & cost effective

- Azure Advisor
- Azure Cost management
- Tags

Hybrid and multi-cloud



Microsoft Azure



Google Cloud

vmware

Windows/Linux Server



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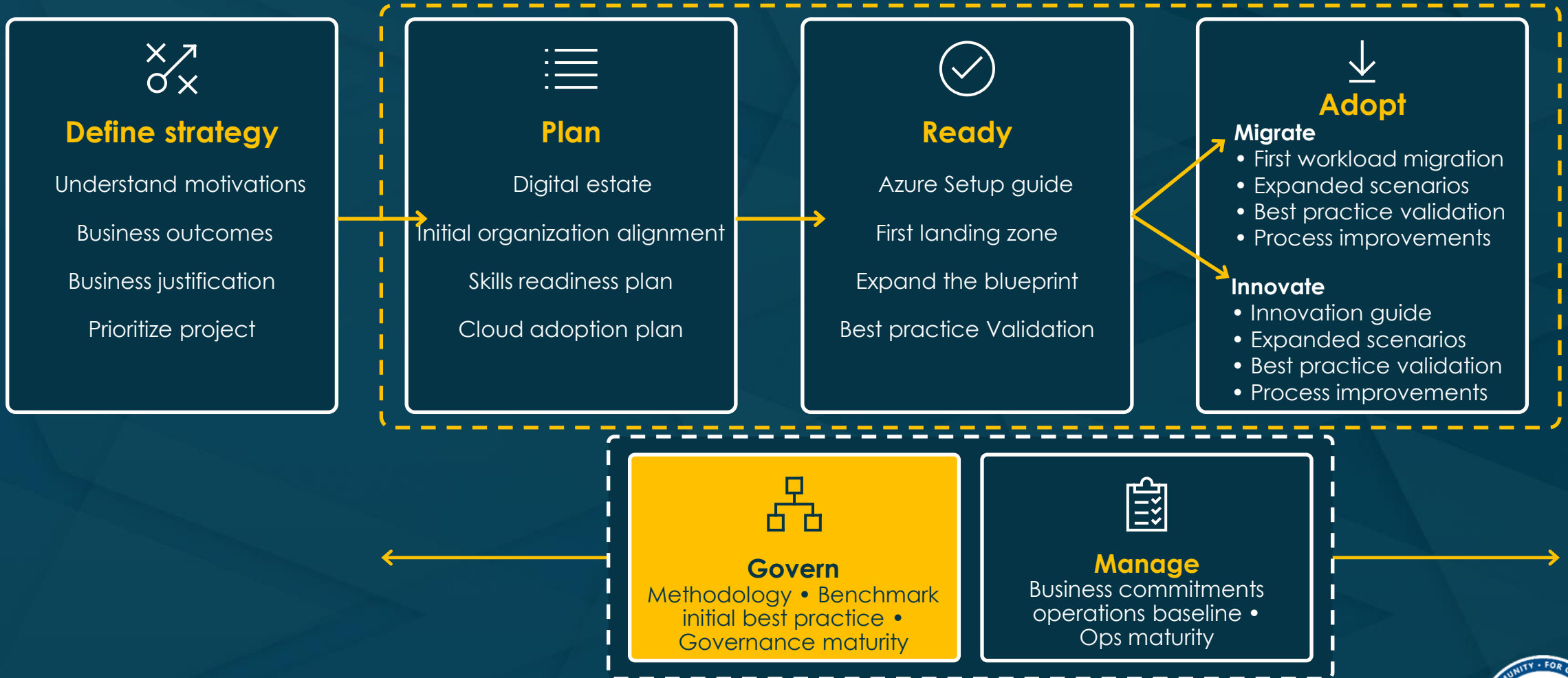


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DESIGN AND STANDARDIZE

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Microsoft Cloud Adoption Framework for Azure



Azure Blueprints



Streamline environment creation

Centralize environment creation through templates

Add resources, policies and role access controls

Track blueprint updates through versioning



Enable compliant development

Empower developers to create fully governed environments through self-service

Create multiple dev-ready environments and subscriptions from a centralize location

Leverage the integration with Azure Policy on the DevOps lifecycle



Lock foundational resources

Ensure foundational resources cannot be changed by subscription owners

Manage locks through a centralize location

Update locked resource through blueprint definition updates

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KEEP CONSISTENT

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Azure Resource Locks

- All resources within that scope inherit the same lock
- You can set lock to 2 settings:
 - **CanNotDelete** means authorized users can still read and modify a resource, but they can't delete the resource.
 - **ReadOnly** means authorized users can view a resource, but they can't delete or update the resource.



Azure Tagging

- Metadata assigned to Azure resources
- Allows you to organize those resources into a taxonomy
- Includes a tag and a value
- Allows you to view resources based on tag and value



Azure Policy

Active control and governance at scale for your Azure resources



Enforcement & compliance

Turn on built-in policies or build custom ones for all resource types

Real-time policy evaluation and enforcement

Periodic & on-demand compliance evaluation

Policy integration for AKS



Apply policies at scale

Apply policies to a Management Group with control across your entire organization

Apply multiple policies and aggregate policy states with policy initiatives

Exclusion Scope

Policy as Code with Azure DevOps



Remediate & automate

Remediate existing resources at scale

Automatic remediation resources at deployment time

Trigger alerts when a resource is out of compliance



Azure Policies

- **Policy:**
A rule that will be enforced
- **Initiative:**
A collection of policies
- **Assignment:**
The scope where the policy applies



DEMO:








Azure Resource Locks, Tags & Azure Policy



Resource groups



FM Benefits

 Add  Manage view   Refresh  Export to CSV  Open query |  Assign tags |  Feedback

Filter for any field... Subscription == **Francesco - MCT** Location == **all**   Add filter

Showing 1 to 4 of 4 records.

No grouping  List view 

<input type="checkbox"/> Name 	Subscription 	Location 	Tags
<input type="checkbox"/>  SS-Demo-RG2	Francesco - MCT	West Europe	
<input type="checkbox"/>  SS-Demo-RG1	Francesco - MCT	West Europe	
<input type="checkbox"/>  Personal-Operations	Francesco - MCT	West Europe	
<input type="checkbox"/>  NetworkWatcherRG	Francesco - MCT	West Europe	



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KEEP SECURE AND COMPLIANT

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Define your own security requirements

A practice by itself

Identity baseline

- Tenants
- Secure your Identities

Administrative roles

- Azure RBAC
- Azure Roles and custom roles

Security Posture and Compliance

- Azure Security Center



Azure Security Center



Strengthen security posture

Cloud security posture management
Secure Score | Policies and compliance



Protect against threats

For
servers

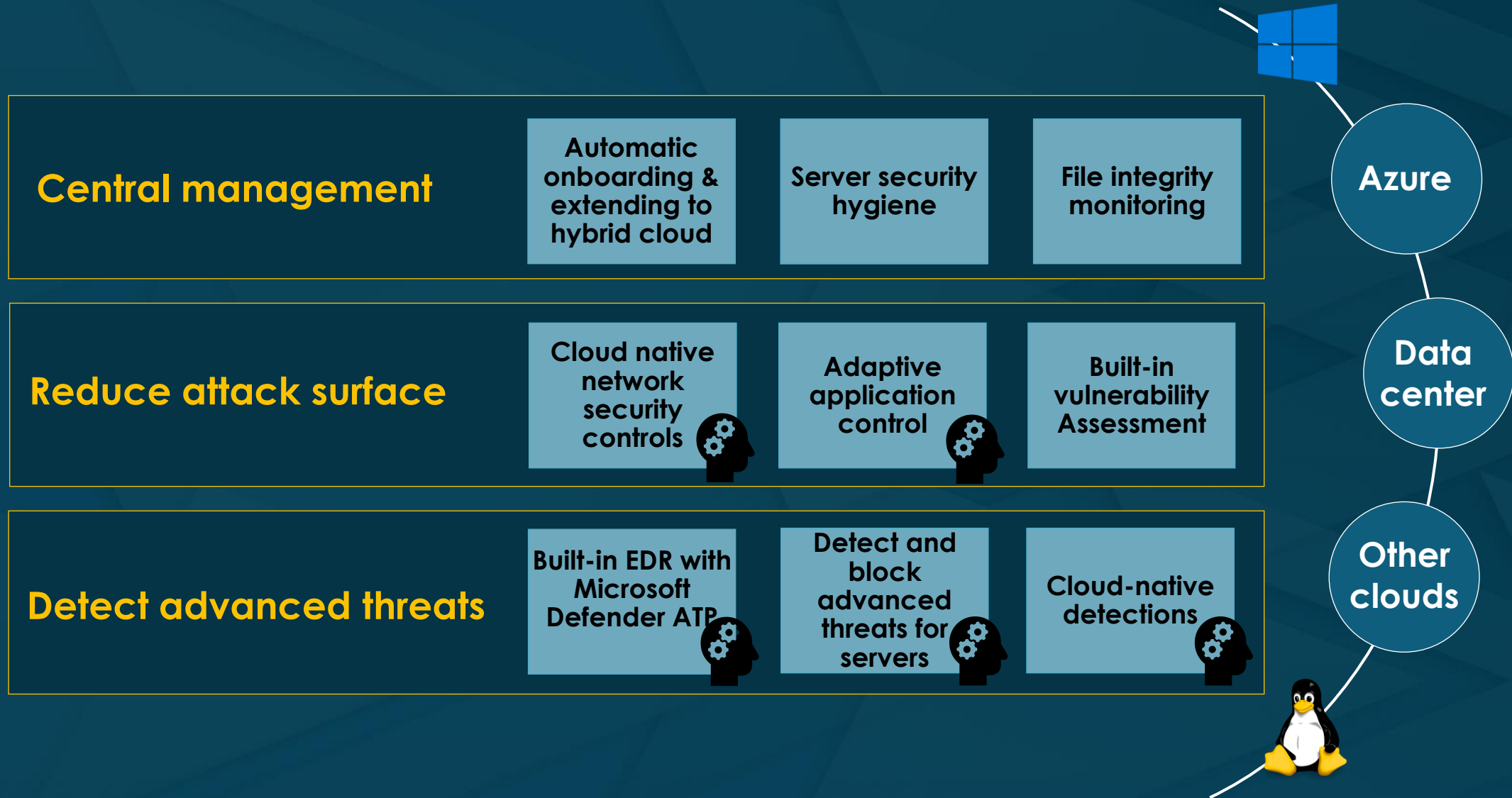
For cloud
native
workloads

For
databases
and storage



Get secure faster

Workload protection for hybrid environments



ASC Highlights

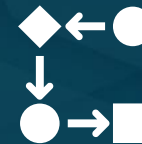


**Microsoft
Defender for
Endpoint
Windows & Linux**



**Compliance
assessment**

PCI DSS 3.2.1 | ISO 27001
SOC TSP | Azure CIS 1.1.0
NIST SP 800-53 R4
SWIFT CSP CSCF v2020



**Response
Automation with
Az Logic Apps**



**Cloud native &
aware detections
and remediations**



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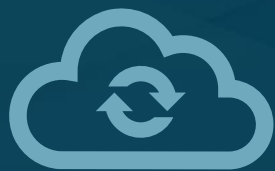
**KEEP OPTIMIZED AND
COST EFFECTIVE**

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Azure Cost Management



**Design with
billing and
costs in mind**



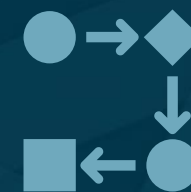
**Azure has
structures to help**

How many tenants?
When do I need a
subscription?



**Azure has
tools to help**

How can I use tags?
How can I configure my
budget and alerts?



**... but planning
and process are
not an option**

What and how do I migrate?

Azure Cost Management

Monitor cloud spending

Track resource usage and manage costs across all your clouds with a single, unified view, and access rich operational and financial insights to make informed decisions.

Increase organizational accountability

Implement governance policies for effective enterprise cloud cost management, and increase accountability with budgets, cost allocation, and chargebacks.

Optimize cloud efficiency

Improve the return on your cloud investment by using continuous cost optimization and industry best practices. Profiling, off-peak scheduling.



DEMO:

Azure Cost Management



- Overview
- Access control
- Diagnose and solve problems

Cost Management

- Cost analysis
- Cost alerts
- Budgets
- Advisor recommendations

Billing

- Usage + charges
- Credits

Products + services










- Azure subscriptions
- Reservations

Settings


- Configuration


Support + troubleshooting


- New support request


 Save  Save as  Delete view  Share  Refresh  Download  Settings  Try preview  Help ⌵

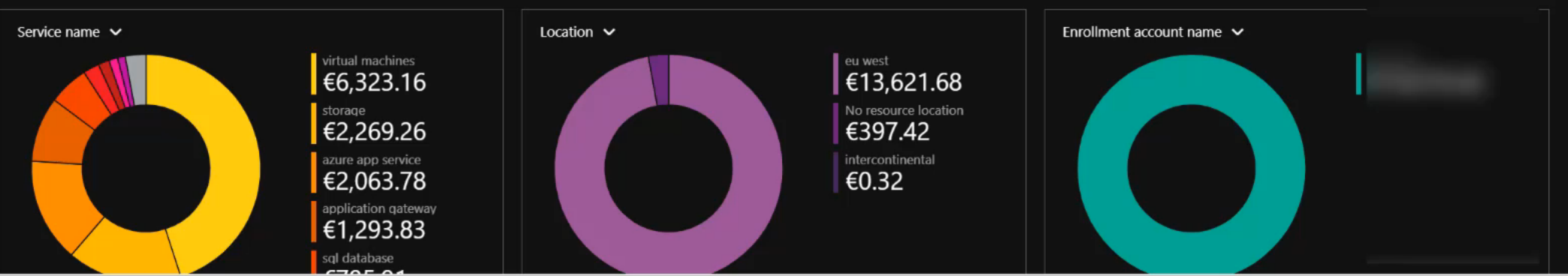
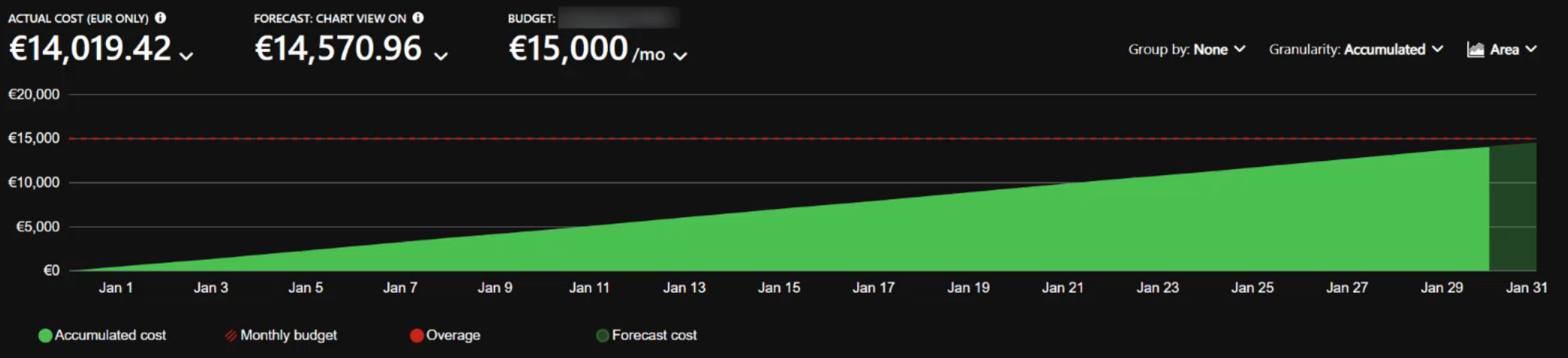
 How satisfied are you with understanding and analyzing costs? →

Scope : 

VIEW  Accumulated costs ⌵

 Jan 2021 ⌵

 Add filter



Different ways to pay for Azure services



Types of workloads

Always running
Running at specific times
Bursting workloads
Spot workloads
Azure Region



Always running

Reserved Capacity
Azure Hybrid benefit



Running at specific times

Allocate/Deallocate logic
VMSS with Autoscaling
Break even based on resource type

Azure Reserved Instances



Reserve resources in advance for significant savings

- 1 or 3 years
- Automatically applied to running workloads



Reserve Azure capacity

- For volume-based services



Significant cost savings up to 72% over pay-as-you-go models



Budget predictability and **prioritized** compute capacity



Flexibility to modify reservations and simplicity of purchase

Azure Hybrid Benefit

- Use Windows and SQL Server licenses in Azure
- Pay only for the base virtual machine service utilization
- Datacenter edition can be run in Azure and on-premises simultaneously
- Significantly reduce costs compared to running Windows Server in other public clouds

Cost Savings



Leverage software to reduce costs in Azure

Flexibility



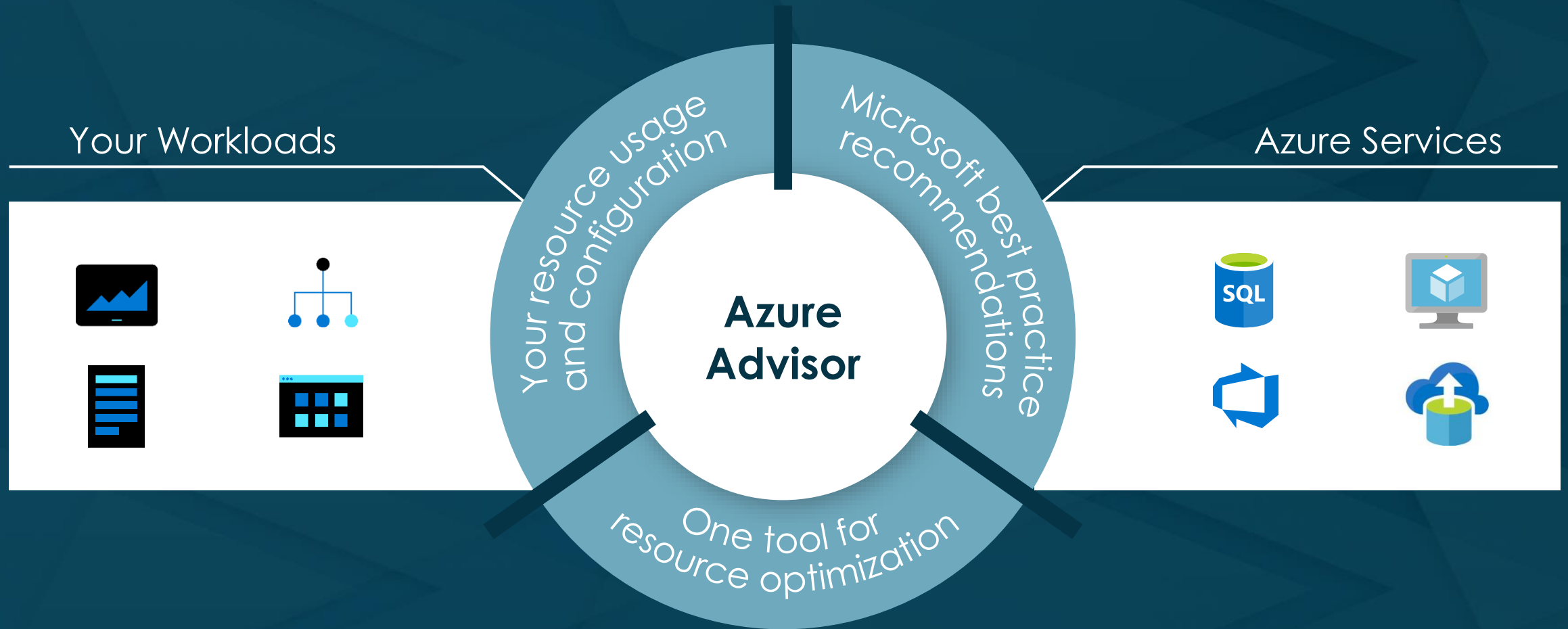
Use software commitments to run on-premises or in Azure, and shift over time

Unique to Azure



Achieve savings unmatched by other cloud providers

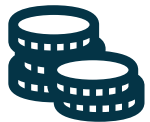
What is Azure Advisor?



Azure Advisor

Your free, personalized guide to Azure best practices

- Best practices to set up and optimize your Azure workloads
- Simple, step-by-step guidance and quick links
- One place to review and act on recommendations across Azure
- Alerts to notify you about new recommendations



Cost

Maximize the return on your Azure investment



Security

Protect your Azure resources from security threats



Performance

Boost speed and responsiveness of your resources



High availability

Increase uptime of your business-critical apps



Operational excellence

Process and workflow efficiency and manageability



DEMO:

Azure Advisor



Search (Ctrl+ /)

- Overview
- Advisor Score (preview)
- Recommendations
 - Cost
 - Security
 - Reliability
 - Operational excellence
 - Performance
 - All recommendations
- Monitoring
 - Alerts (Preview)
 - Recommendation digests
- Settings
 - Configuration

Feedback Download as CSV Download as PDF Try the new Advisor Score (preview)

Try the new Advisor score experience to better prioritize recommendations and measure impact. →

Subscriptions: 6 of 9 selected – Don't see a subscription? Open Directory + Subscription settings

6 subscriptions Active

Cost 48,202 USD savings/yr *

4 Recommendations

4 High impact 0 Medium impact 0 Low impact

31 Impacted resources

Security

57 Recommendations

28 High impact 20 Medium impact 9 Low impact

161 Impacted resources

Reliability

4 Recommendations

0 High impact 4 Medium impact 0 Low impact

26 Impacted resources

Operational excellence

7 Recommendations

Performance

3 Recommendations

Try Advisor Score

Preview the new Advisor score experience

Is Advisor helpful?



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INNOVATE ACROSS HYBRID AND MULTI-CLOUD WITH AZURE ARC

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Customer environments & application requirements are evolving


100's–1,000's of apps



Diverse infrastructure



Hybrid and multi-cloud

 Microsoft Azure

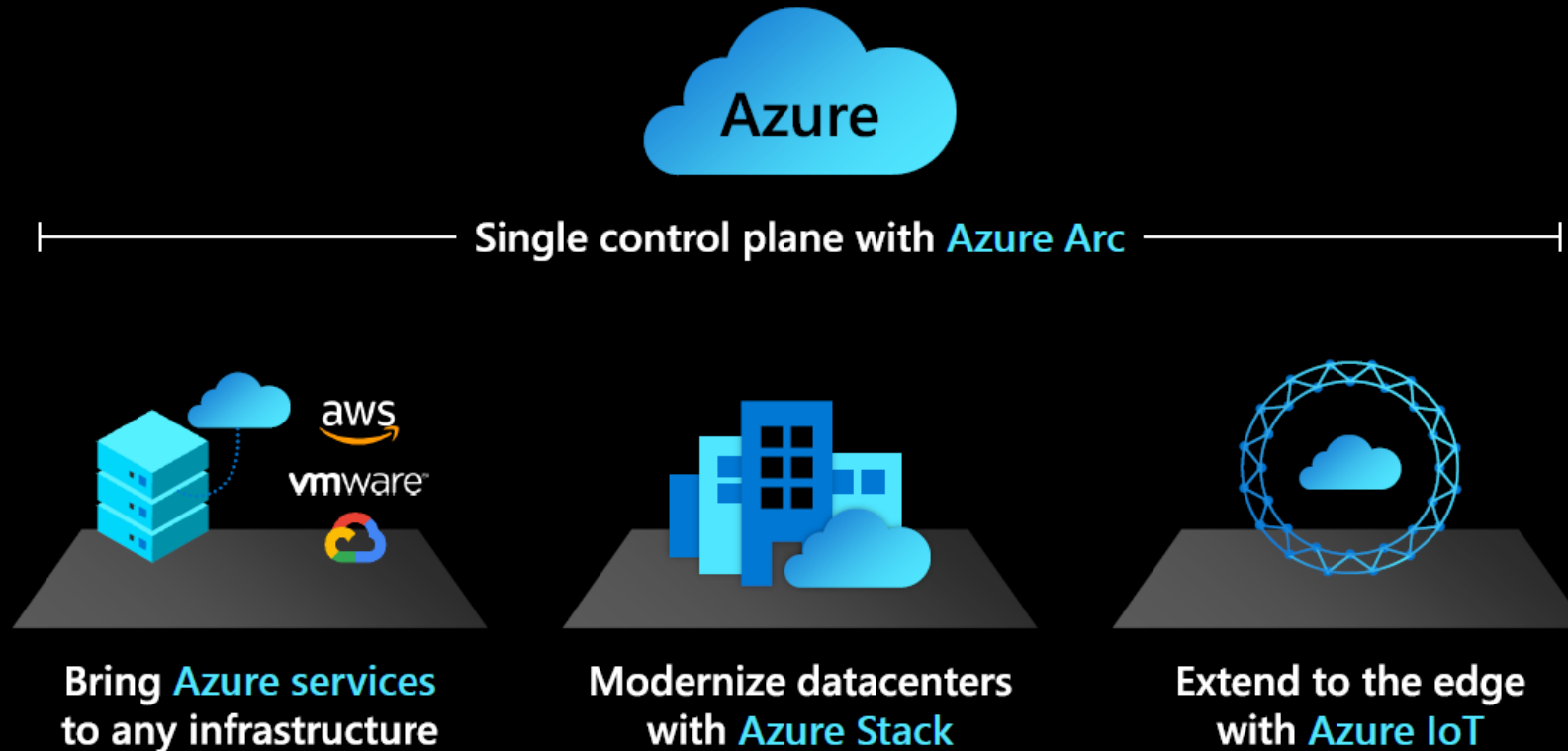
 AWS

 Google Cloud

 VMware

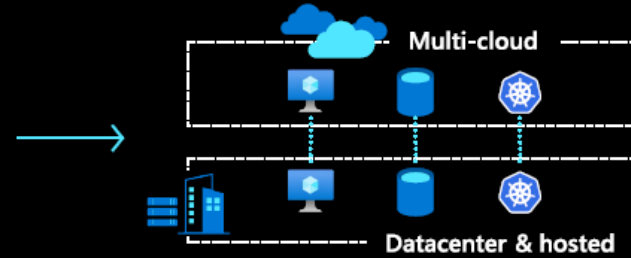
Windows/Linux Server

Azure Hybrid: innovation anywhere with Azure



Azure Arc: extend Azure management and services anywhere

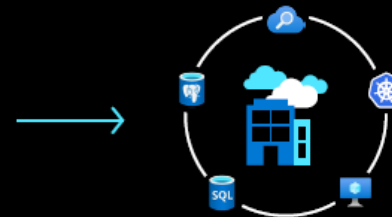
Gain central visibility,
operations, and compliance



Build cloud native apps
anywhere, at scale

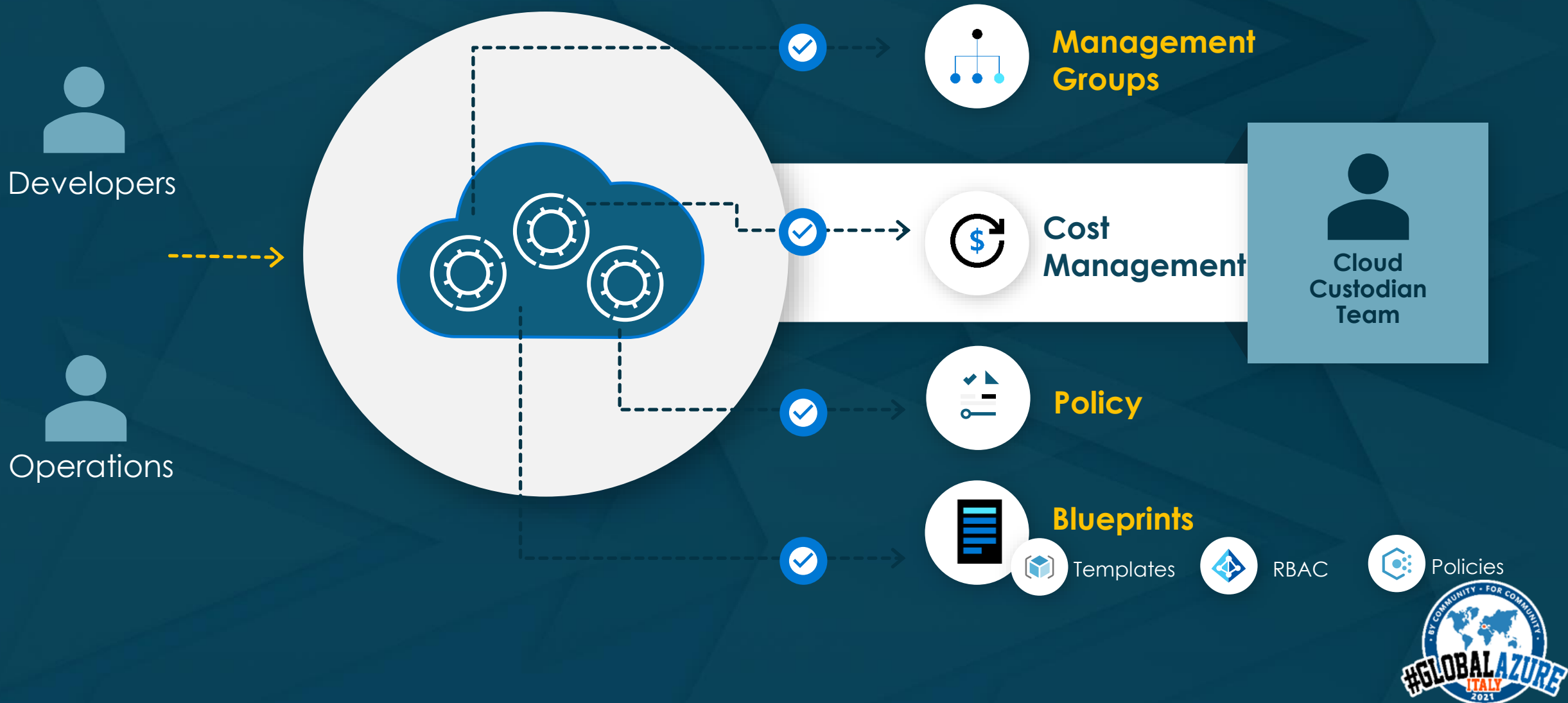


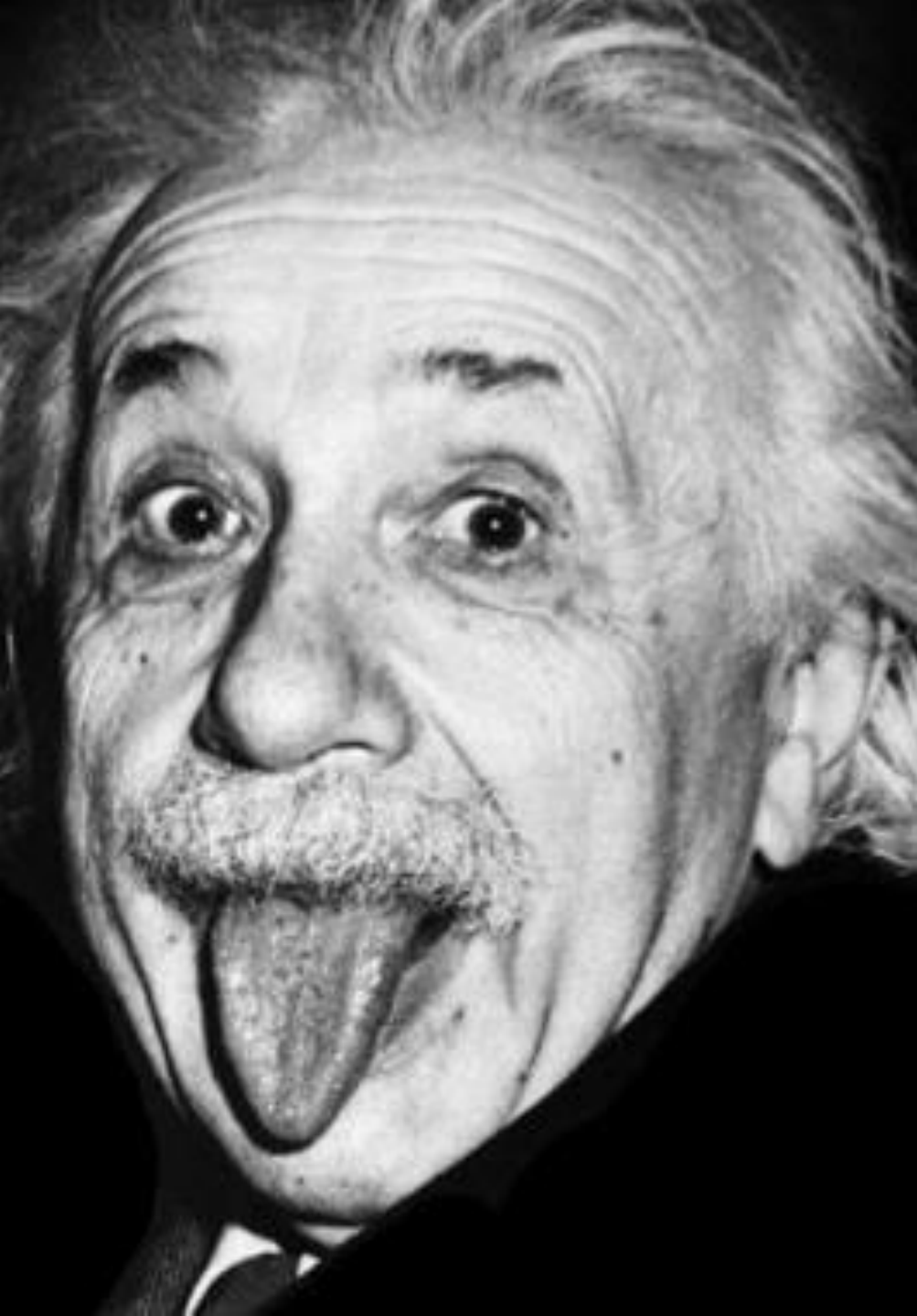
Run Azure services anywhere



Speed and control

Cloud-native governance: Removing barriers to compliance and enabling velocity





If you want different results, do not
do the same things. ”

Albert Einstein



Thank you!

