

An aerial night view of a city, likely London, showing a dense cluster of buildings and a prominent multi-lane highway with bright orange and yellow light trails from traffic. The overall color palette is dominated by deep blues and purples, with the city lights providing a warm contrast.

enimbos
the cloud enabler company



**CLOUD EXPO
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Efficient Governance in a Multicloud world

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By 2021, at least 75% of large and global organizations will implement a multicloud-capable hybrid integration platform, up from less than 25% in 2018.

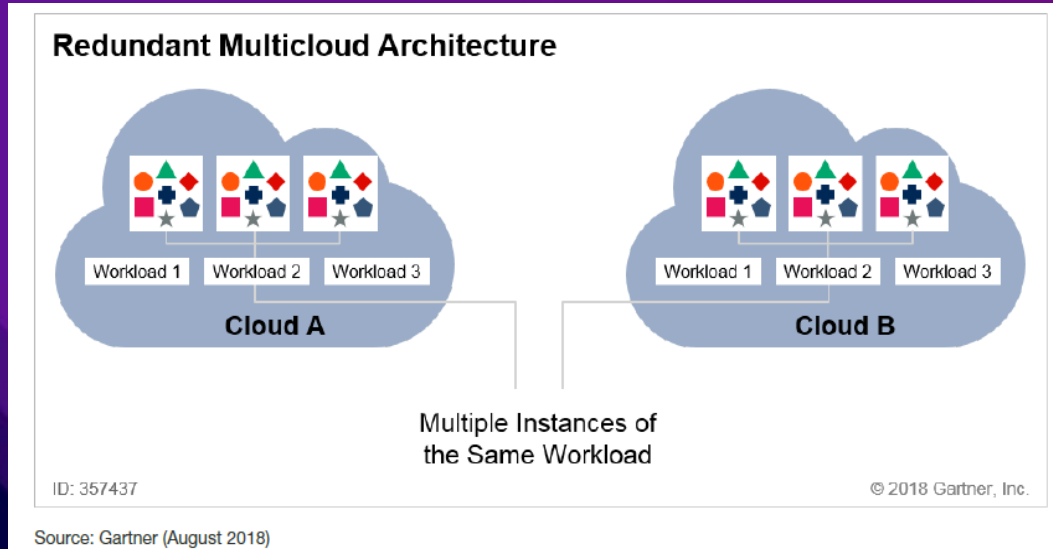
Gartner

How to Architect a Multicloud-Capable Hybrid Integration Platform

Published 3 May 2018 - ID G00344836

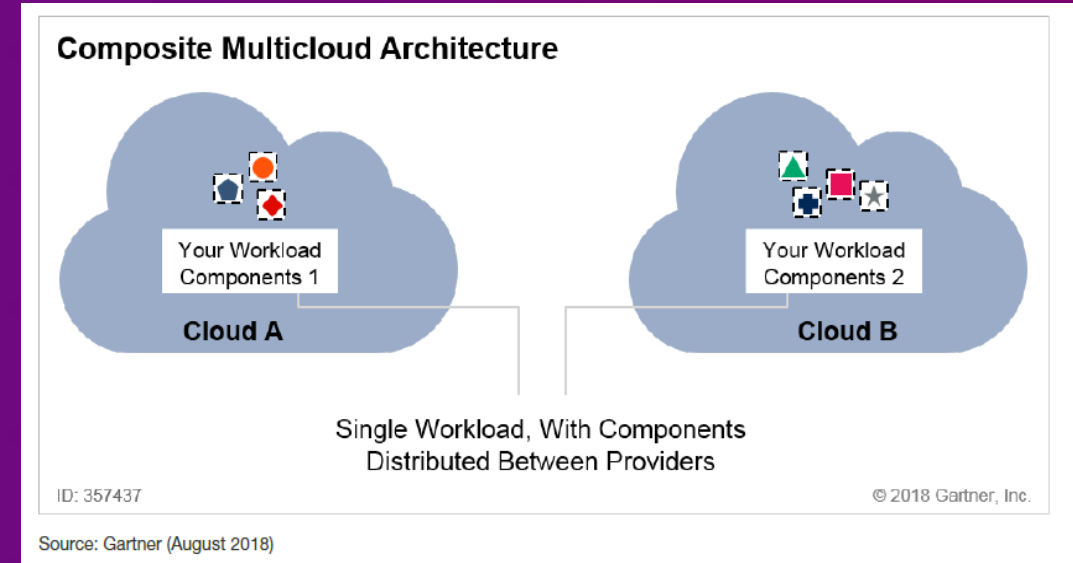


Key challenges:



Application leaders are increasingly dealing with applications and data sources scattered across multiple providers' cloud environments and structures (IaaS, PaaS and SaaS).

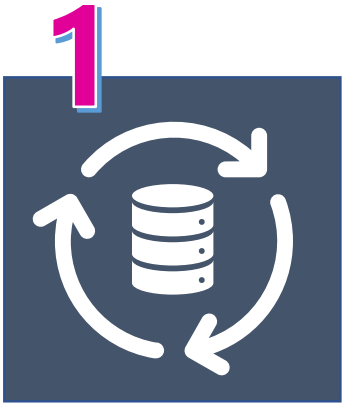
Different integration platform providers support diverse ways to tackle multi-CSI, which makes it difficult for application leaders to match these offerings with their requirements.



Although integration platforms are becoming more versatile, few can address all of the requirements in organizations with a wide range of highly differentiated multi CSI scenarios.

Running several clouds requires not only skills but also **human resources and time**

m ... so the areas to be covered by the government layer are:



Agnostic solution for
**Transformation of
Datacenter to the**
cloud



Continuous
support for
**Optimization and
Multi-cloud
Governance**



Improving
personalized support
thanks to a **24/7
next-generation
managed services**



Providing a **Leak
Detection Audit** to
secure the cloud
environments



“Organizations need to develop a **governance layer** that can provide this complete abstraction from the unique functionality of different cloud vendors and **enable cloud-agnostic** implementation without extra complexity.”

Forbes Technology Council, 2018



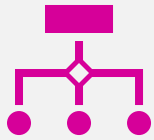
Most of existing scenarios provide limited capabilities in cloud migration, backup, monitoring, disaster recovery and security

| Critical Capabilities ↓ | Agile Applications ↓ | Reliable Applications ↓ | Lift-and-Shift Data Center ↓ | Strategic DevOps Transformation ↓ |
|-------------------------------------|----------------------|-------------------------|------------------------------|-----------------------------------|
| Provisioning and Orchestration | | | | |
| Inventory and Classification | | | | |
| Service Requests | | | | |
| Monitoring and Analytics | | | | |
| Manage Costs and Optimize Resources | | | | |
| Cloud Migration, Backup and DR | | | | |
| Identity, Security and Compliance | | | | |
| Total | | | | |

Gartner Published 7 January 2019 - ID G00369278

Dennis Smith, Matthew Cheung, Colin Fletcher, Padraig Byrne

Based on that analysis, we identify the following key challenges for gaining Multi-Cloud Interoperability:



Matching the Organization structure with the existing accounts and subscriptions



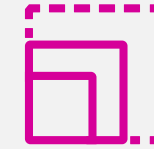
Creating and controlling users and roles based on each organization area responsibilities



Defining and applying homogeneous tagging and values to all cloud resources



Controlling and auditing the start/stop of services in a single panel



Defining, applying and logging planned Start/Stop/Resize for a defined set of services



Controlling and monitoring all the security and leak risks



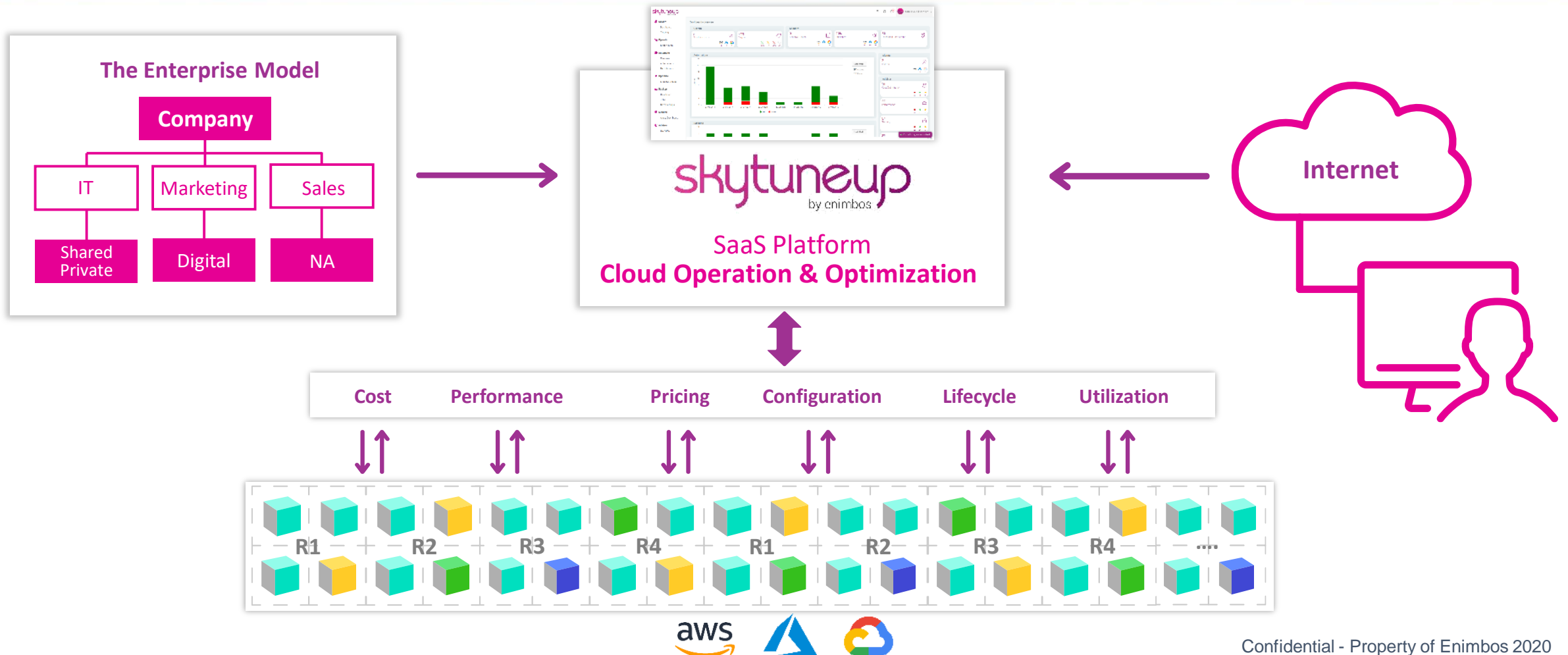
Maximize the use of cheapest resources with the best reliability and performance




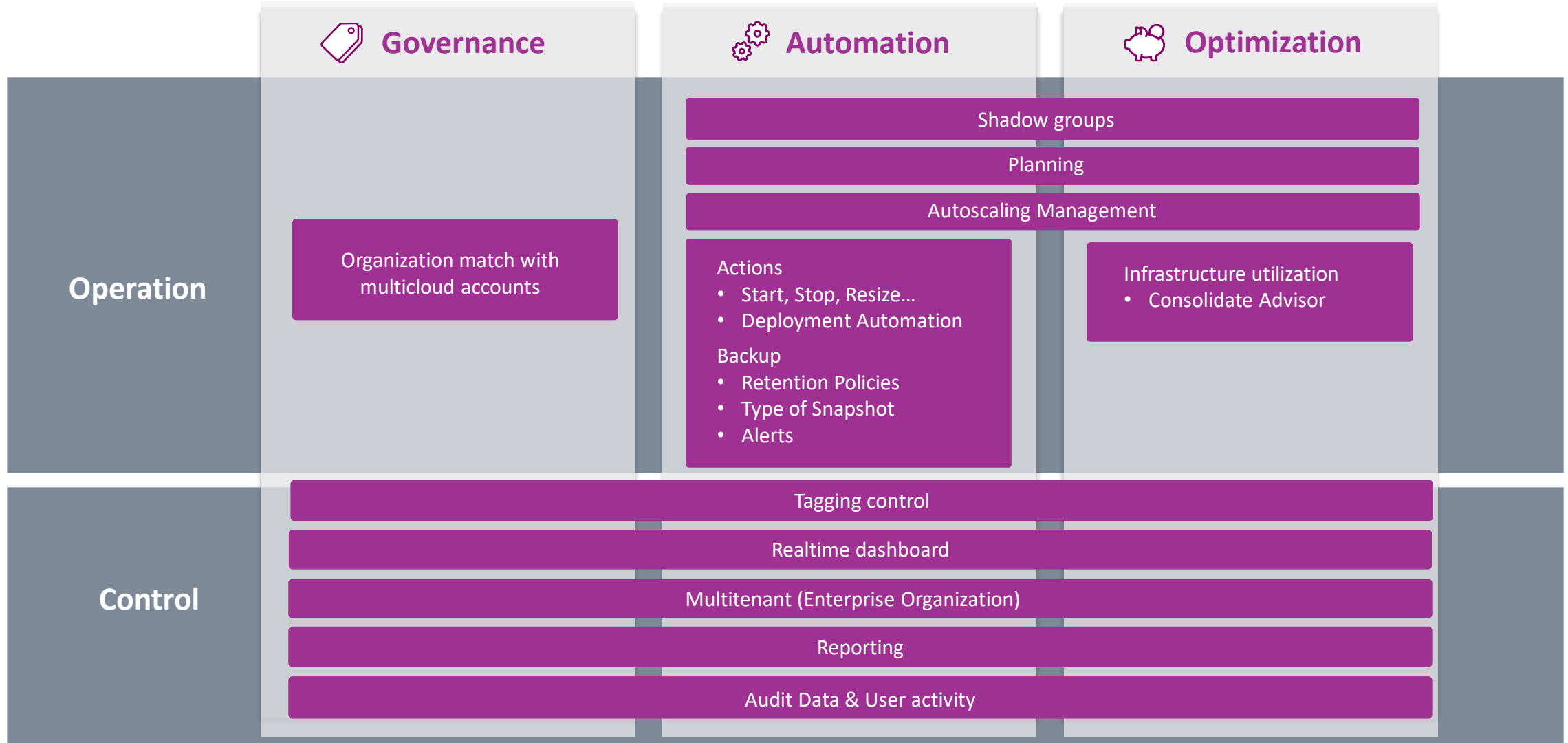
skytuneup
by enimbos



Helping to consolidate the governance of multi-cloud environment aligned with your business and simplifying the complexity



 Providing a complete set of functionalities that helps to increase and optimize the control in a single panel



Let's review in detail
some of the key features

Registration and Multi-cloud management

Self provisioning > Cloud Accounts > Add Cloud Account

AWS > MANUALLY

Cloud Account Name: TEST AWS

STEP 1: Open the IAM console [Open IAM Console](#)

STEP 2: Click the Policies tab on the sidebar, and select Create Policy > Switch to JSON tab > Paste the attached policy and click Review Policy > Set the policy name to SkytuneUp-Policy, and click Create Policy [View & Copy Policy](#)

STEP 3: Click the Roles tab on the sidebar, and click Create Role > Select Another AWS account, and set Account ID: 081794141860

STEP 4: Check the Require external ID checkbox, and set External ID, and click Next: 86PSAR8u0LJ

STEP 5: On the Attach permissions policies page please choose SkytuneUp-Policy, then click Next

STEP 6: Set role name: SkytuneUp-Role, Copy the RoleArn from the role's screen and paste it here

7. Associate your Cloud Account to an Organizational Unit.

☒ Enimbo

- ☐ Corporate
 - ☐ Production
 - ☐ Test
- ☐ Business Lines
 - ☐ Itsafer
 - ☒ Skytuneup
 - ☐ Production
 - ☐ Development

[Test](#) [Connect](#)

Cloud account
creation

- Cloud account list
- Organizational units hierarchy

Self provisioning > Cloud Accounts

Advanced Filter [Filter Results](#)

| Cloud Account Name | Provider | Organizational Unit | Status | |
|--------------------------|----------|---------------------|--------|---|
| AMAZON-ENIMBOS-IT | AWS | Production | ✓ | Info Refresh Delete |
| AMAZON-ENIMBOS-SANBOX | AWS | Test | ✓ | Info Refresh Delete |
| AMAZON-ENIMBOS-WED | AWS | Production | ✓ | Info Refresh Delete |
| AZURE-CSP-ENIMBOSIT | | | ✓ | Info Refresh Delete |
| AZURE-CSP-SKYTUNEUP-DEV | | | ✓ | Info Refresh Delete |
| AZURE-ENIMBOS-CLINCAHOLE | | | ✓ | Info Refresh Delete |
| AZURE-ENIMBOS-MSP10K | | | ✓ | Info Refresh Delete |
| AZURE-ENIMBOSIT | | | ✓ | Info Refresh Delete |
| GOOGLE-INTERNO | | | ✓ | Info Refresh Delete |
| 9 total | | | | |

[Create Cloud Account](#)

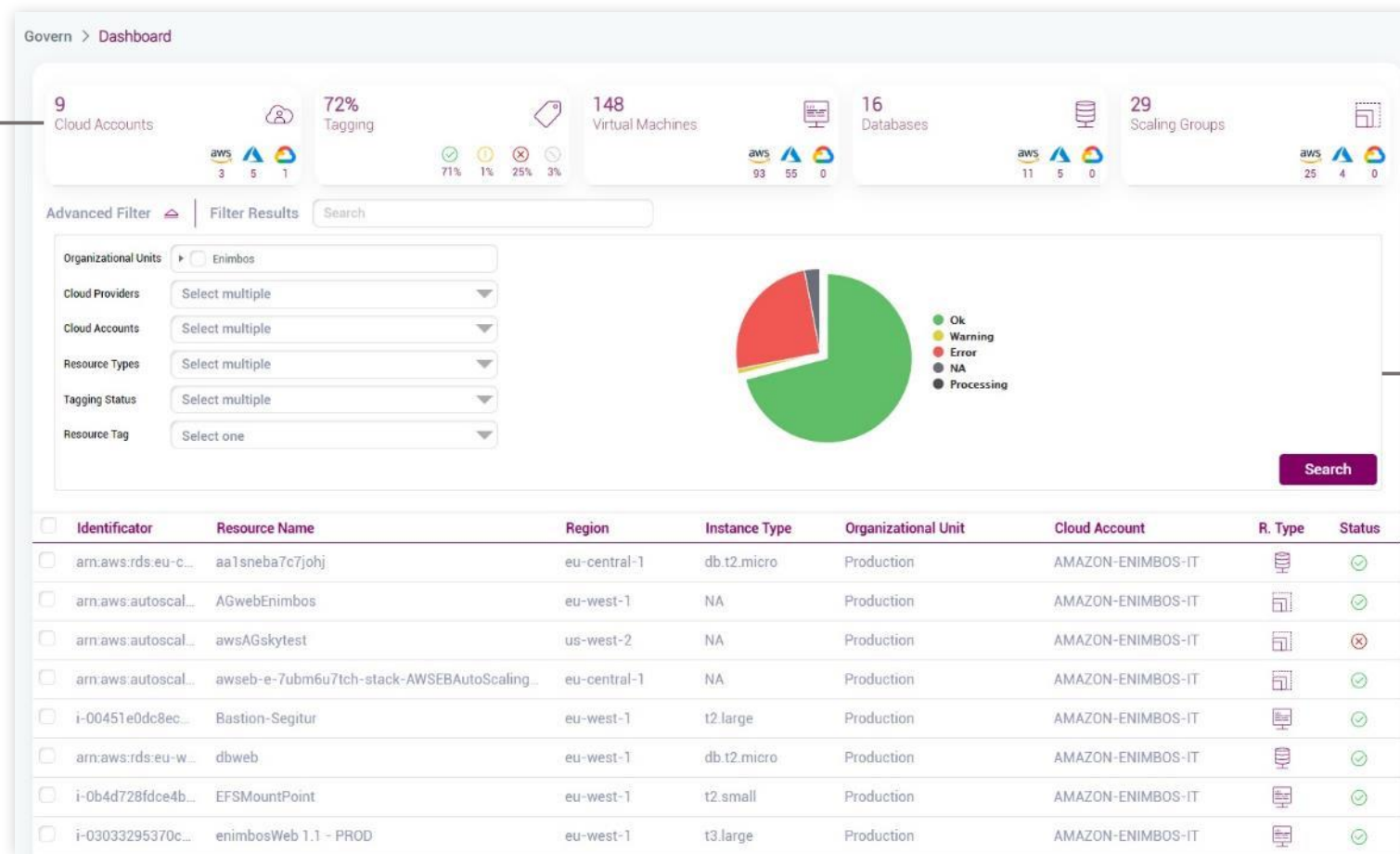
Organizational Unit

```
graph TD; Enimbo --> Corporate; Enimbo --> BusinessLines[Business Lines]; Corporate --> Production1[Production]; Corporate --> Test; BusinessLines --> Itsafer; BusinessLines --> Skytuneup; Skytuneup --> Production2[Production]; Skytuneup --> Development
```

OK

Governance of resources evenly

Total resources and
measure of tagging
policy compliance



Resources filter
with compliance
percentages

Operation of resources

Advanced filter by
cloud provider,
cloud account and
resource type

Operate > Start & Stop

Advanced Filter | Filter Results Search

Organizational Units: ☐ Enimbos

Cloud Providers:

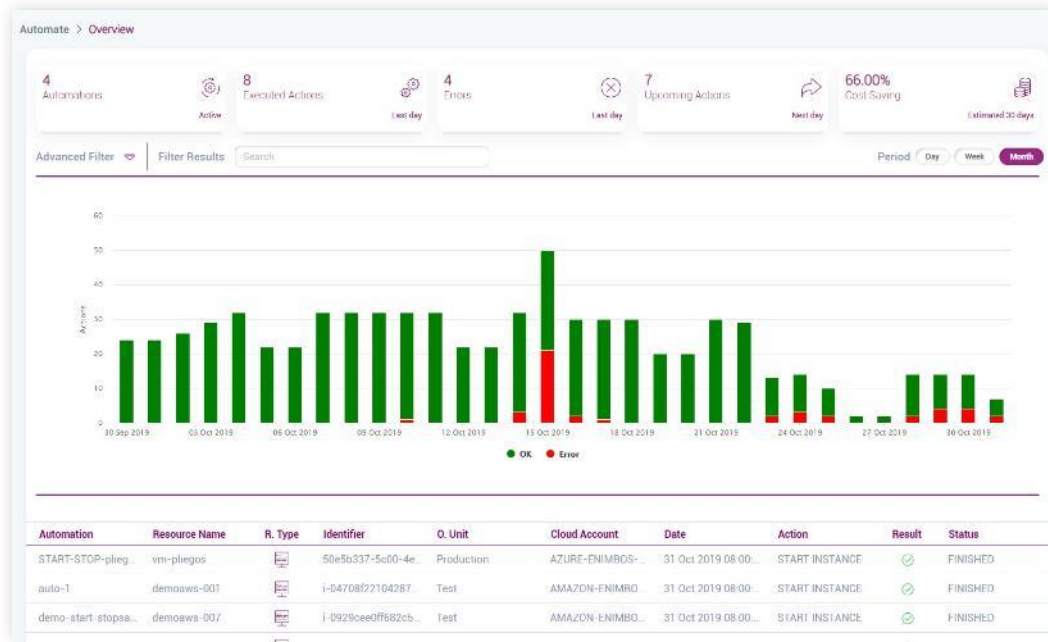
Cloud Accounts:

Resource Types:

| R. Type | Resource Name | Start/Stop | Status | Identificator | Region | Instance Type | Cloud Account | Info |
|---------|-----------------------|------------|---------|--------------------------|--------------|---------------|-------------------|------|
| | aa1sneba7c7johj | | running | arn:aws.rds:eu-centra... | eu-central-1 | db.t2.micro | AMAZON-ENIMBOS-IT | |
| | Bastion-Segitur | | stopped | i-00451e0dc8ec1c52f | eu-west-1 | t2.large | AMAZON-ENIMBOS-IT | |
| | dbweb | | running | arn:aws.rds:eu-west-... | eu-west-1 | db.t2.micro | AMAZON-ENIMBOS-IT | |
| | EFSMountPoint | | stopped | i-0b4d728fdce4b67f0 | eu-west-1 | t2.small | AMAZON-ENIMBOS-IT | |
| | enimbosWeb 1.1 - PROD | | stopped | i-03033295370c9b1a3 | eu-west-1 | t3.large | AMAZON-ENIMBOS-IT | |
| | enimbosWeb 1.2 | | stopped | i-0888d9c39af960b2b | eu-west-1 | t2.large | AMAZON-ENIMBOS-IT | |
| | enimbosWeb1.1 old | | stopped | i-0451f39436259e1cb | eu-west-1 | t2.micro | AMAZON-ENIMBOS-IT | |
| | enimboswebdb | | running | arn:aws.rds:eu-west-... | eu-west-1 | db.t2.micro | AMAZON-ENIMBOS-IT | |
| | Grafana | | stopped | i-0b687b6d32b326d50 | eu-west-1 | t2.micro | AMAZON-ENIMBOS-IT | |
| | i-0016bd77e5ae88745 | | stopped | i-0016bd77e5ae88745 | us-east-1 | t2.micro | AMAZON-ENIMBOS-IT | |
| | i-012f2236fe9ecbee0 | | stopped | i-012f2236fe9ecbee0 | us-east-1 | t2.micro | AMAZON-ENIMBOS-IT | |
| | i-0ccb2c8d448cbdc23 | | stopped | i-0ccb2c8d448cbdc23 | eu-west-1 | t2.medium | AMAZON-ENIMBOS-IT | |
| | SEGHDIAG | | stopped | i-0eda7c4b73824206f | eu-west-1 | c5.xlarge | AMAZON-ENIMBOS-IT | |
| | segsitad01pv | | stopped | i-05e5bad5b14b9d63c | eu-west-1 | c4.xlarge | AMAZON-ENIMBOS-IT | |
| | segsitad02pv | | stopped | i-0d081e82c5e2dd7d4 | eu-west-1 | c4.xlarge | AMAZON-ENIMBOS-IT | |

Details dashboard
of all resources
managed by the
platform

Resources automation: Start/stop based on predefined schedules



Automations
behaviour, KPIs and
their total results

Creation of an
automation

Automate > Automations > Edit Automation

Please enter the information for your Automation:

Name* Description*

Start* End*

Organizational Unit* Resource Type Cloud Provider Cloud Account

Select the time that you want to have your resources running:

Hours:

Schedule resolution:

Running Stopped

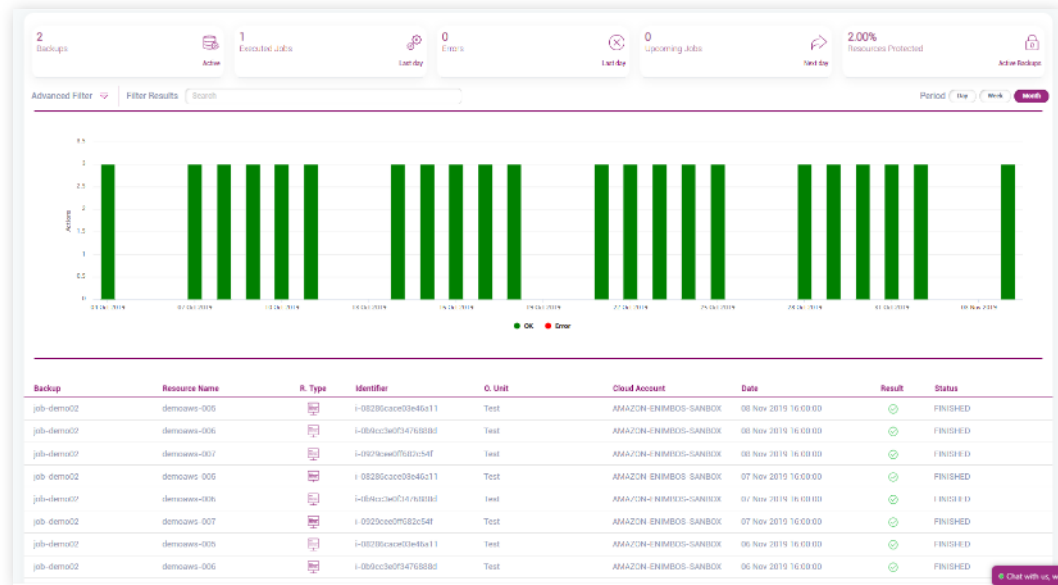
Tags included in the automation:

Key Value

Update Cancel



Backup automation: Snapshots based on predefined schedules



Backups dashboard
with KPIs and total
results

Backup creation

Backup > Jobs > Create Backup Job

Select Backup Job source | Select Resources | Scheduler

Please enter the information for your Backup:

Name* job-demo002 | Organizational Unit* Enimbos

Description* job-demo002

Start* 2019-10-24 | End* 2020-10-24

Select the moments that you want to launch de backups:

Weekday Select | Start time HH MM

| Weekday | Time |
|-----------|-------|
| Monday | 16:00 |
| Tuesday | 16:00 |
| Wednesday | 16:00 |
| Thursday | 16:00 |
| Friday | 16:00 |

Select the retention policies to apply to the backups:

☒ Last successful 4 success backup

☒ Weekly retention First backup for 4 weeks

☐ Monthly retention backup for months

☐ Yearly retention backup for years

Create Cancel

Optimize > Shadow Groups > Detail

Principal Policies Instances Timeline

Asp-skytuneup-demo-003
Name

Aggressive
(274M)

22% more aggressive than shadow group roles

3 EC2 instances on-demand

5 IAM roles

44% Cost savings

Info

- Instance type**
 - Availability Zones: us-east-1a, us-east-1b, us-east-1c
- Used Resources**
 - EC2-Asp-skytuneup-demo-003
- Last Action**
 - 1: ASK-2019-12-26-05 - 17 min On-Demand Instance - 00000000000000000000 - 100% CPU, 100% Memory

Availability Zones

4

Historical Number of Instances

Period: **day** **week** **month**

Y-axis: # of instances (0 to 5)

X-axis: 10/24, 10/28, 11/01, 11/05, 11/09, 11/13, 11/17, 11/21, 11/25

Legend: **Shadow** (blue), **On-Demand** (orange)

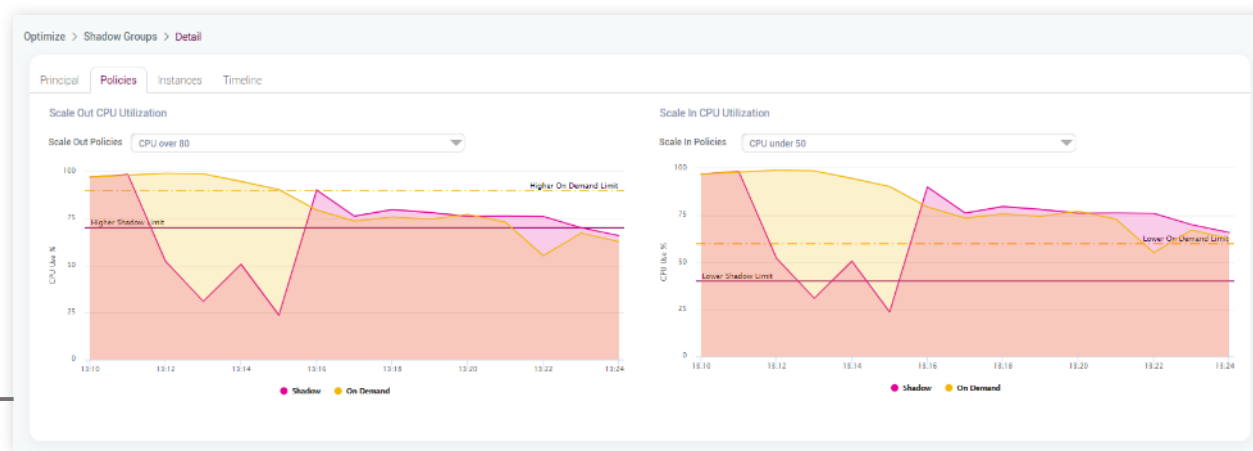
Availability Zones

Y-axis: # of instances (0 to 3)

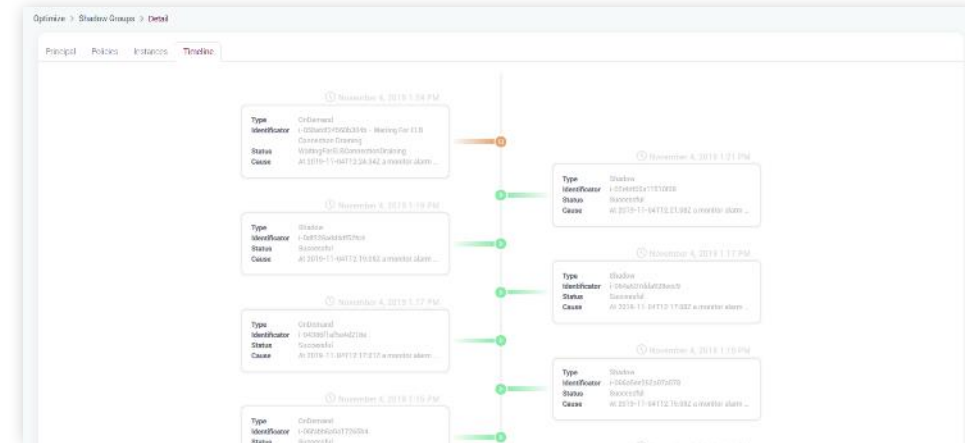
X-axis: eu-central-1a, eu-central-1b, eu-central-1c

Legend: **Shadow** (blue), **On-Demand** (orange)

Scale In/Out Policies dashboard

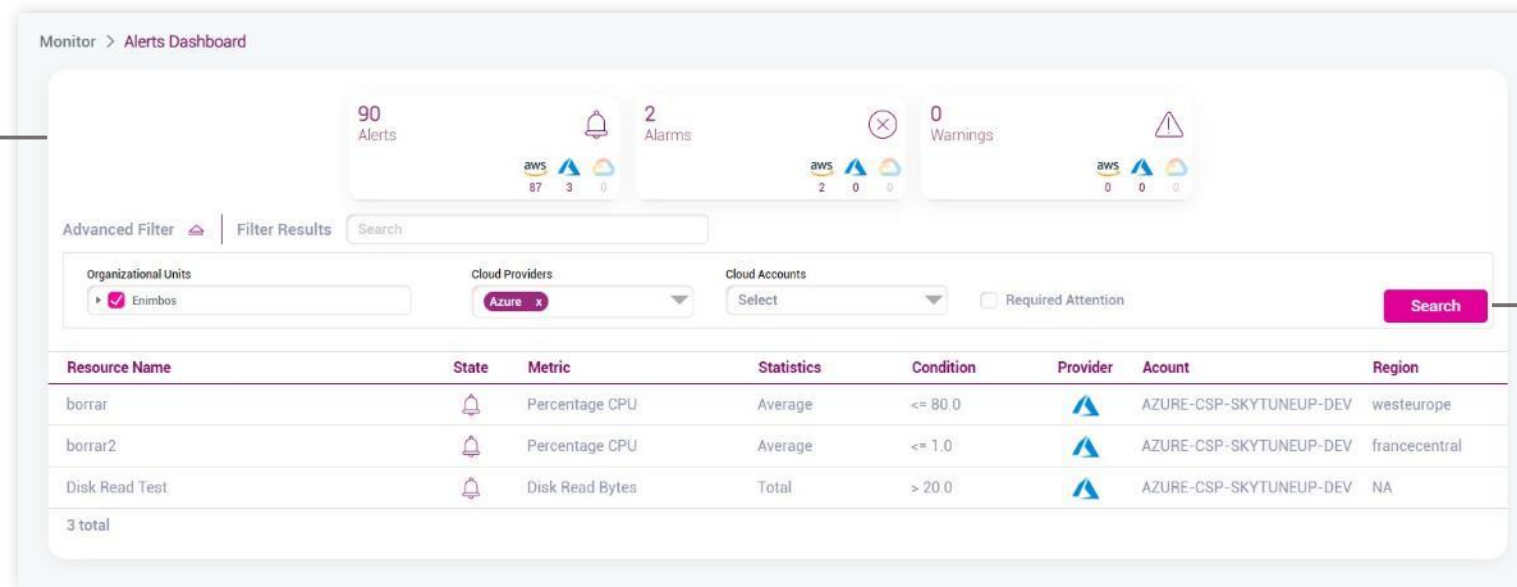


Shadow groups timeline



Monitoring: Control and alerts system

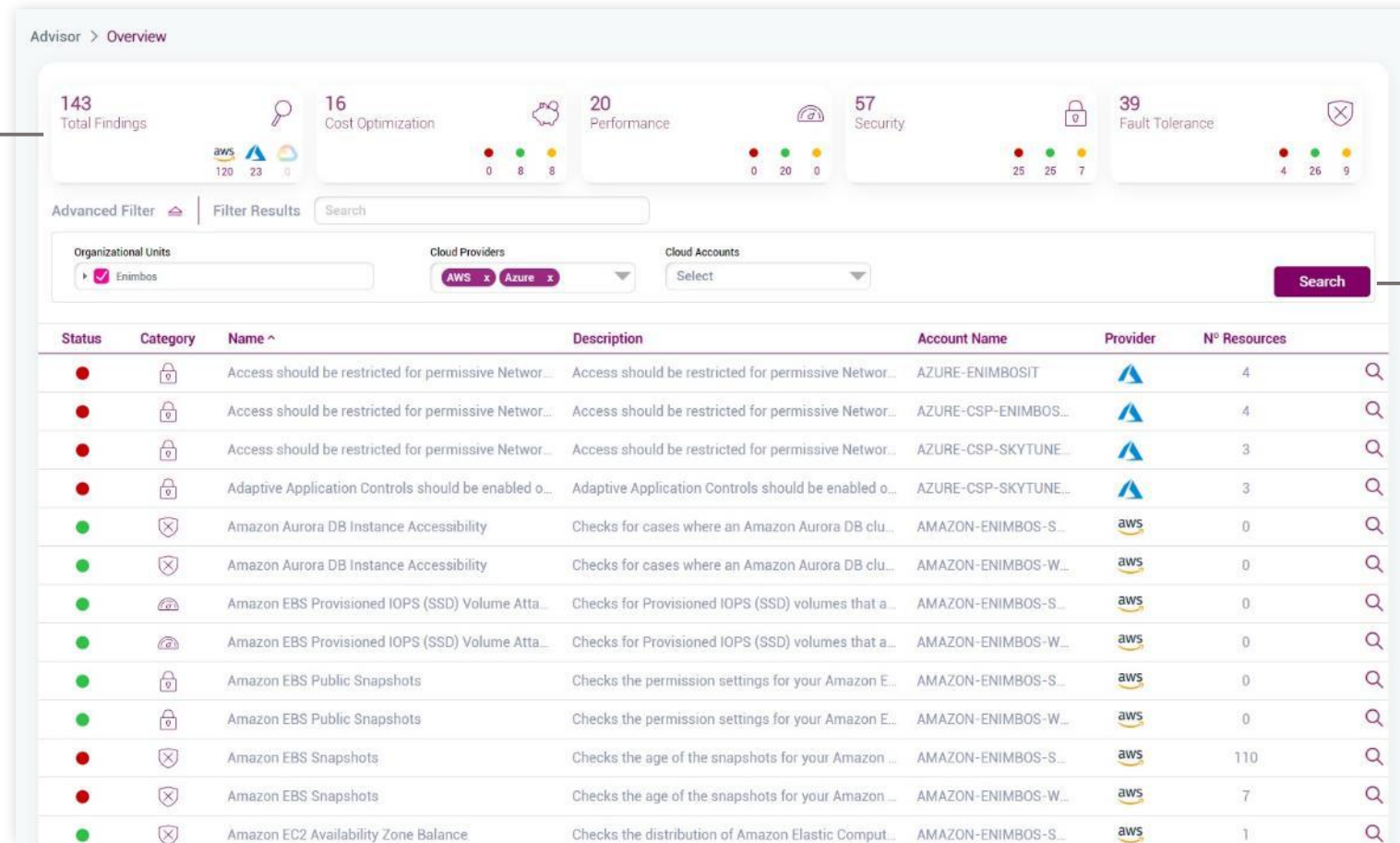
Multicloud
monitoring of
alerts, alarms and
warnings



Advanced filter by
cloud provider and
cloud account

And finally... the “guest star”: Multicloud recommendations

Monitor of
multicloud
recommendations



Advanced filter by
cloud provider and
cloud account



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