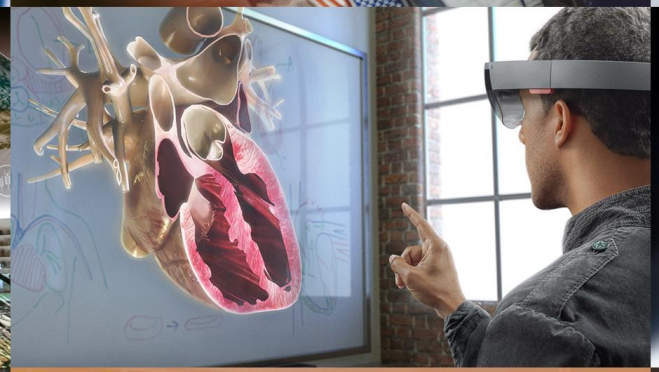
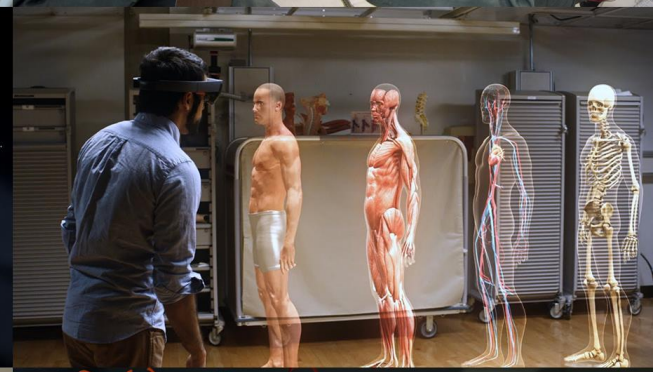
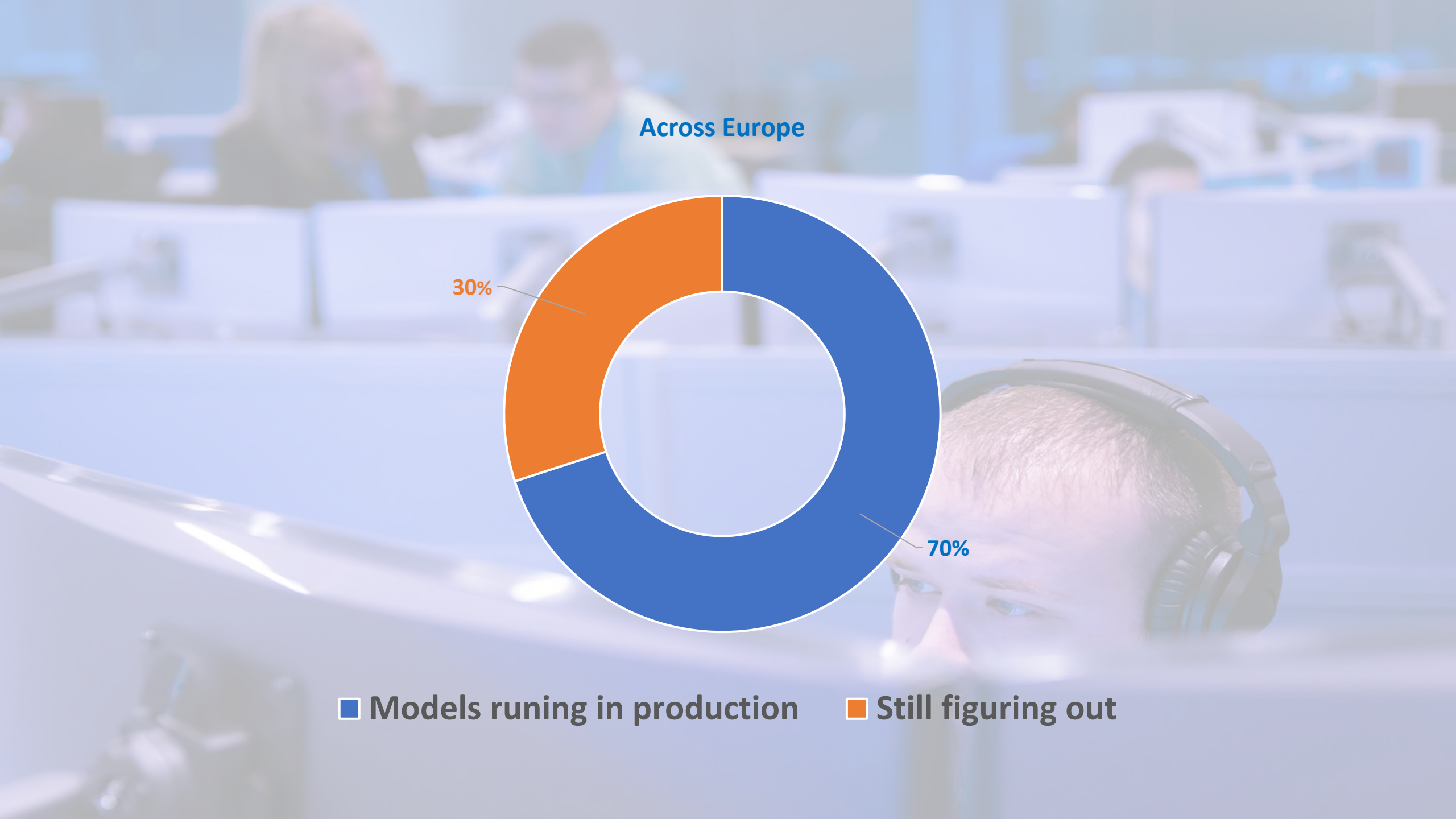
Make your ML / AI production ready !

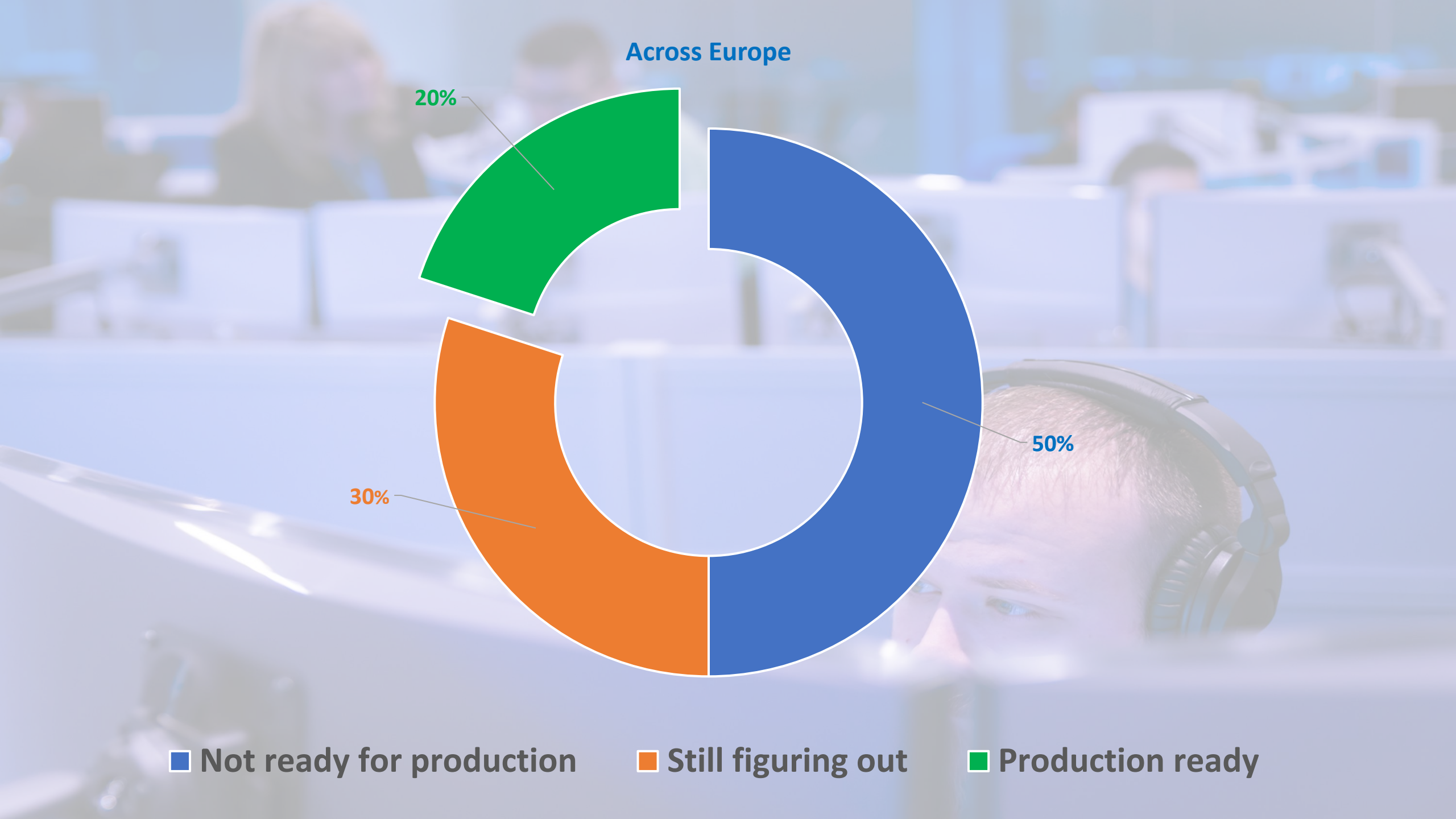
Ashok Samal
Microsoft, WE





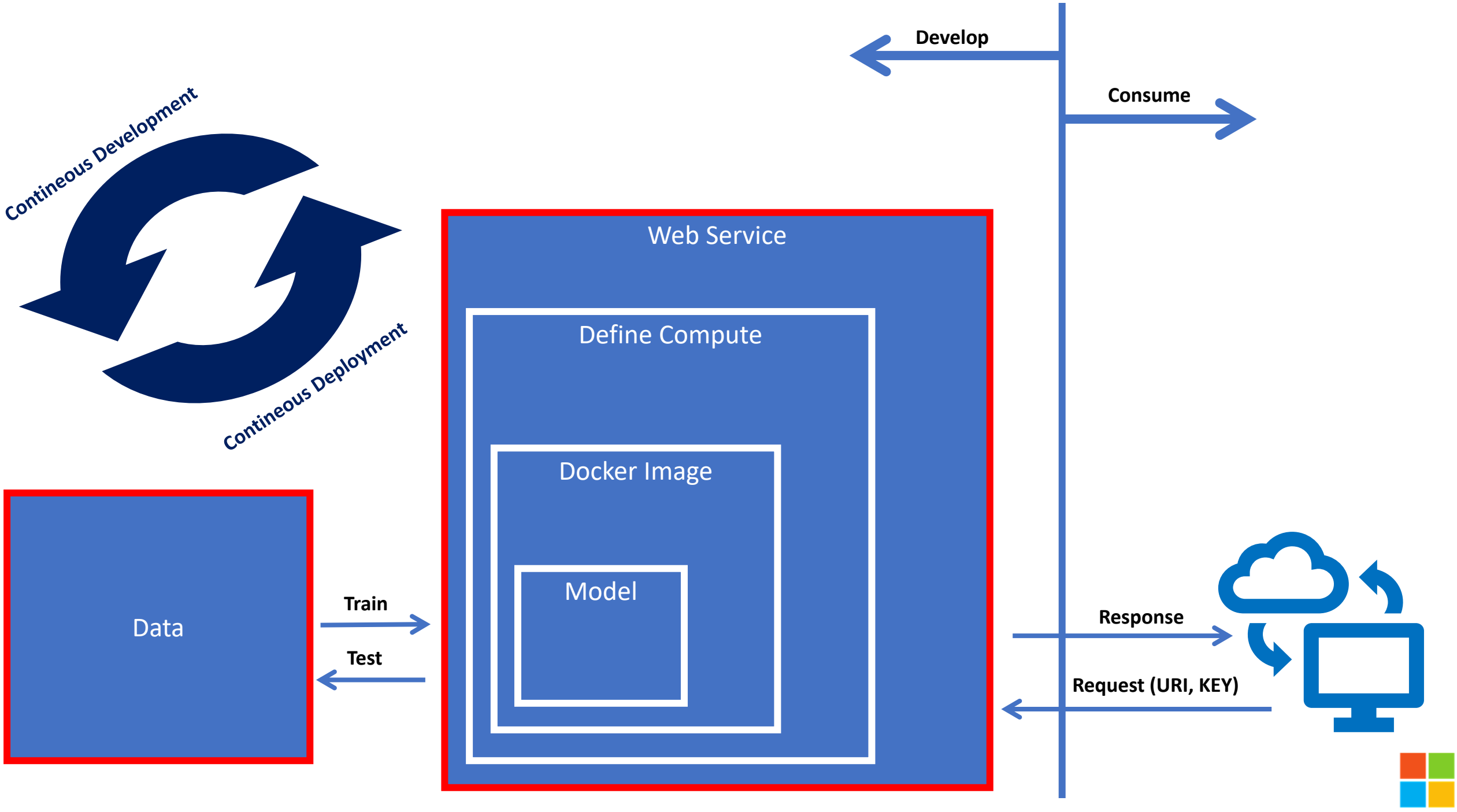
JUMP


Across Europe
30%
70%
Models runing in production
Still figuring out


Across Europe
20%
50%
30%
Not ready for production
Still figuring out
Production ready

Accessibility

Accessibility


Develop
Consume
Contineous Development
Contineous Deployment
Web Service
Define Compute
Docker Image
Model
Data
Train
Test
Response
Request (URI, KEY)

aksws-gui-1

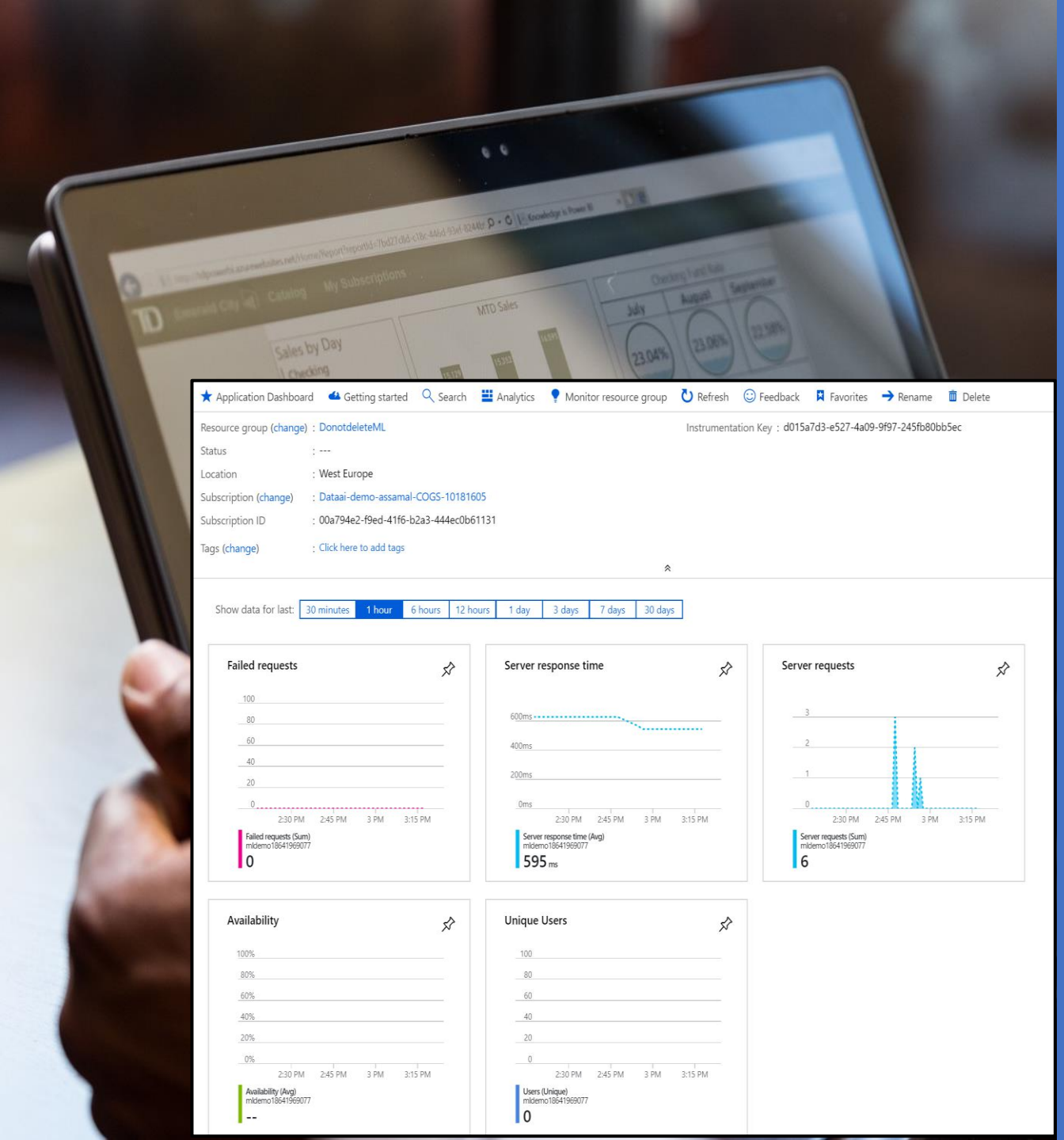
Back to Deployments | Refresh | Edit | Delete | Get Link

Details | Models | Images

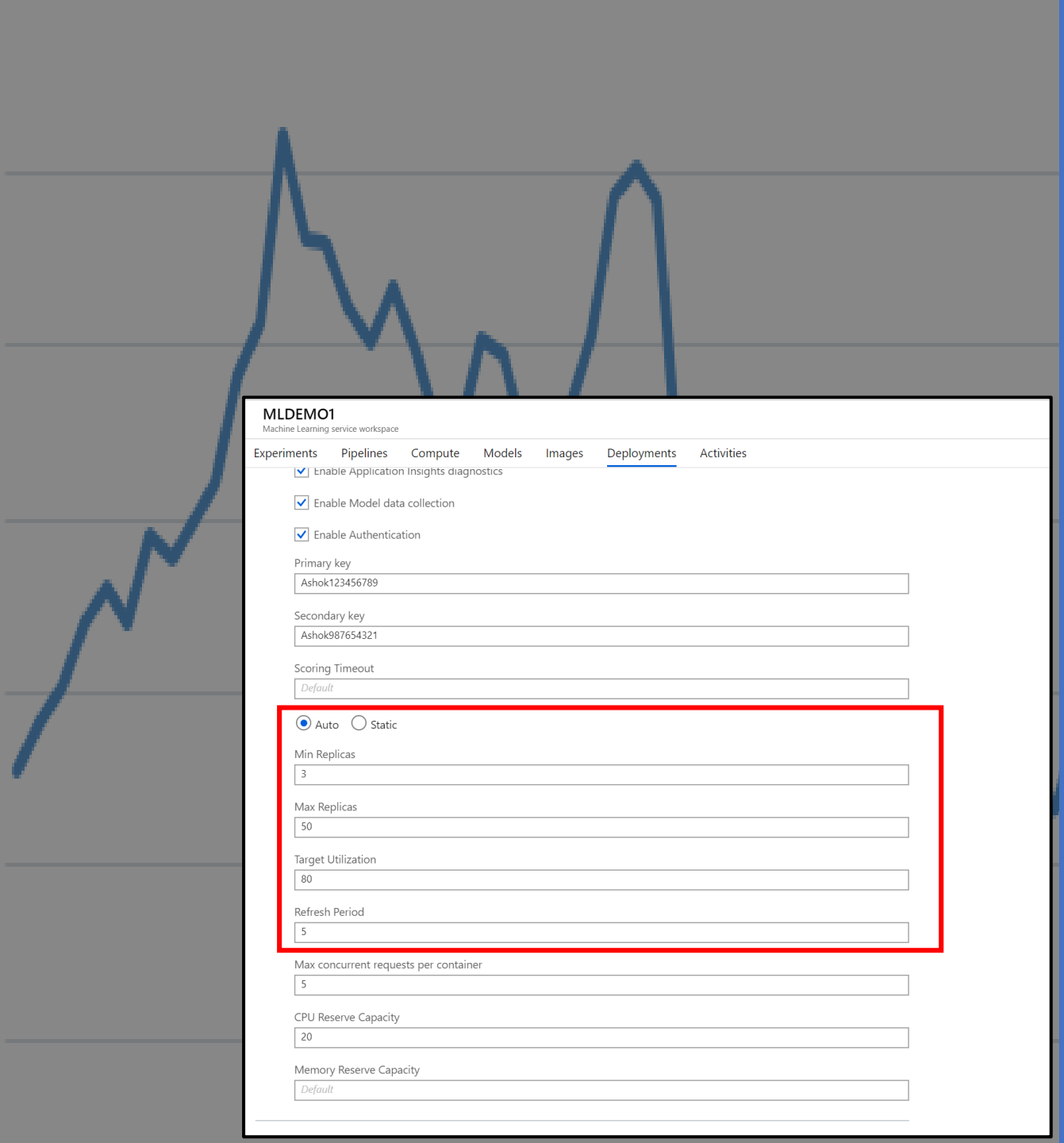
ATTRIBUTES

Description	AKSWS-GUI-1
State	Failed
Compute Type	AKS
Service ID	aksws-gui-1
Tags	
Creation date	03/13/2019, 12:58:39 PM UTC
Last updated	03/13/2019, 12:58:39 PM UTC
Compute name	aks-compute-1
Image ID	aciws-1:1
Scoring URI	
Authentication enabled	true
Primary key	Ashok987654321 Regenerate
Secondary key	Ashok123456789 Regenerate
Scoring timeout	
CPU	20
Memory	0.5 GB
Autoscale enabled	true
Min replicas	2 replicas
Max replicas	4 replicas
Target utilization	80%
Refresh period	5 seconds
Application Insights enabled	true
Event Hub enabled	false
Storage enabled	true

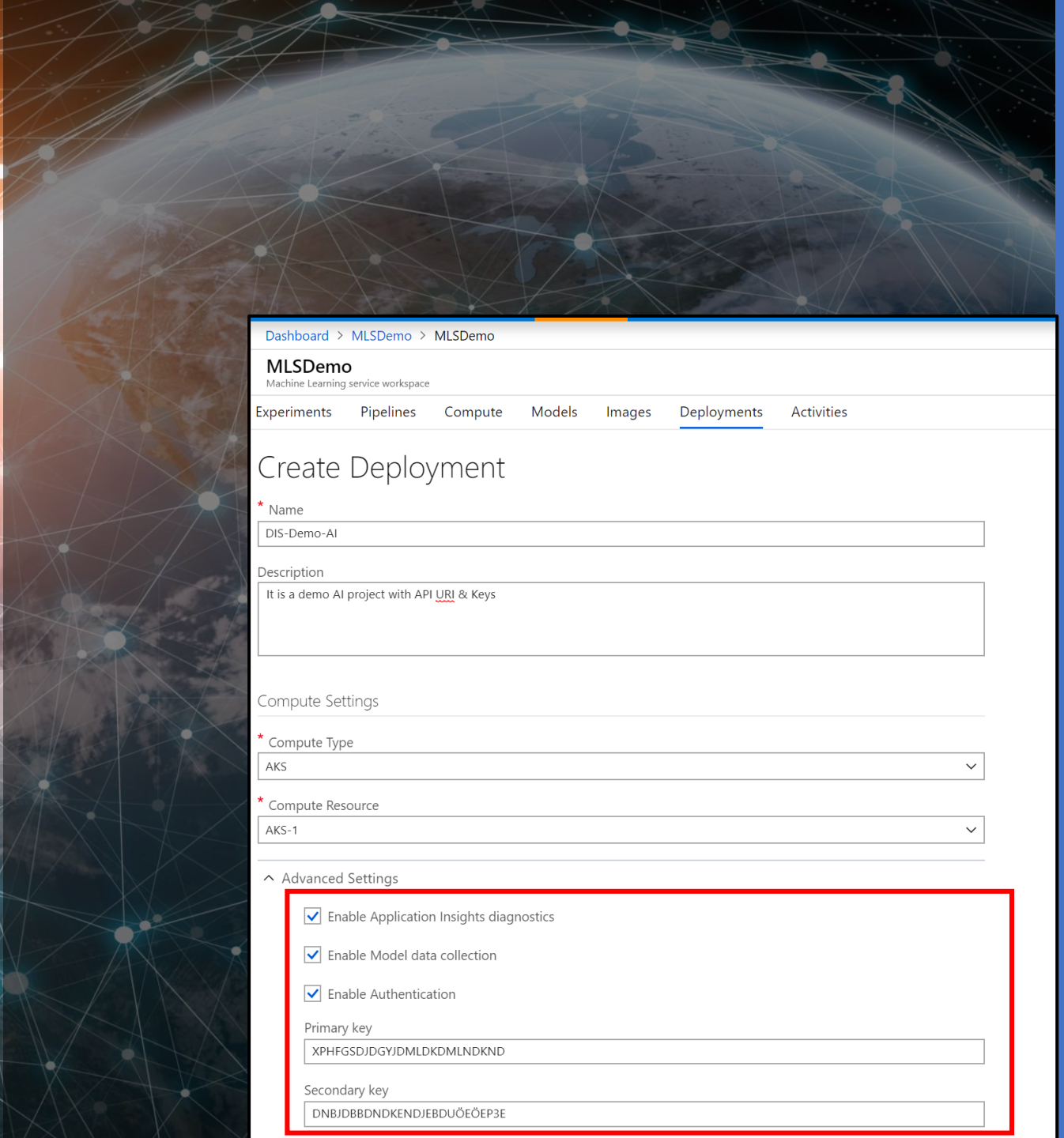
Accessibility



Diagnostics


MLDEMO1
Machine Learning service workspace
Experiments
Pipelines
Compute
Models
Images
Deployments
Activities
Enable Application Insights diagnostics
Enable Model data collection
Enable Authentication
Primary key
Ashok123456789
Secondary key
Ashok987654321
Scoring Timeout
Default
Auto
Static
Min Replicas
3
Max Replicas
50
Target Utilization
80
Refresh Period
5
Max concurrent requests per container
5
CPU Reserve Capacity
20
Memory Reserve Capacity
Default

Elasticity



Dashboard > MLSDemo > MLSDemo

MLSDemo

Machine Learning service workspace

Experiments | Pipelines | Compute | Models | Images | Deployments | Activities

Create Deployment

* Name

DIS-Demo-AI

Description

It is a demo AI project with API URI & Keys

Compute Settings

* Compute Type

AKS

* Compute Resource

AKS-1

Advanced Settings

- [x] Enable Application Insights diagnostics
- [x] Enable Model data collection
- [x] Enable Authentication

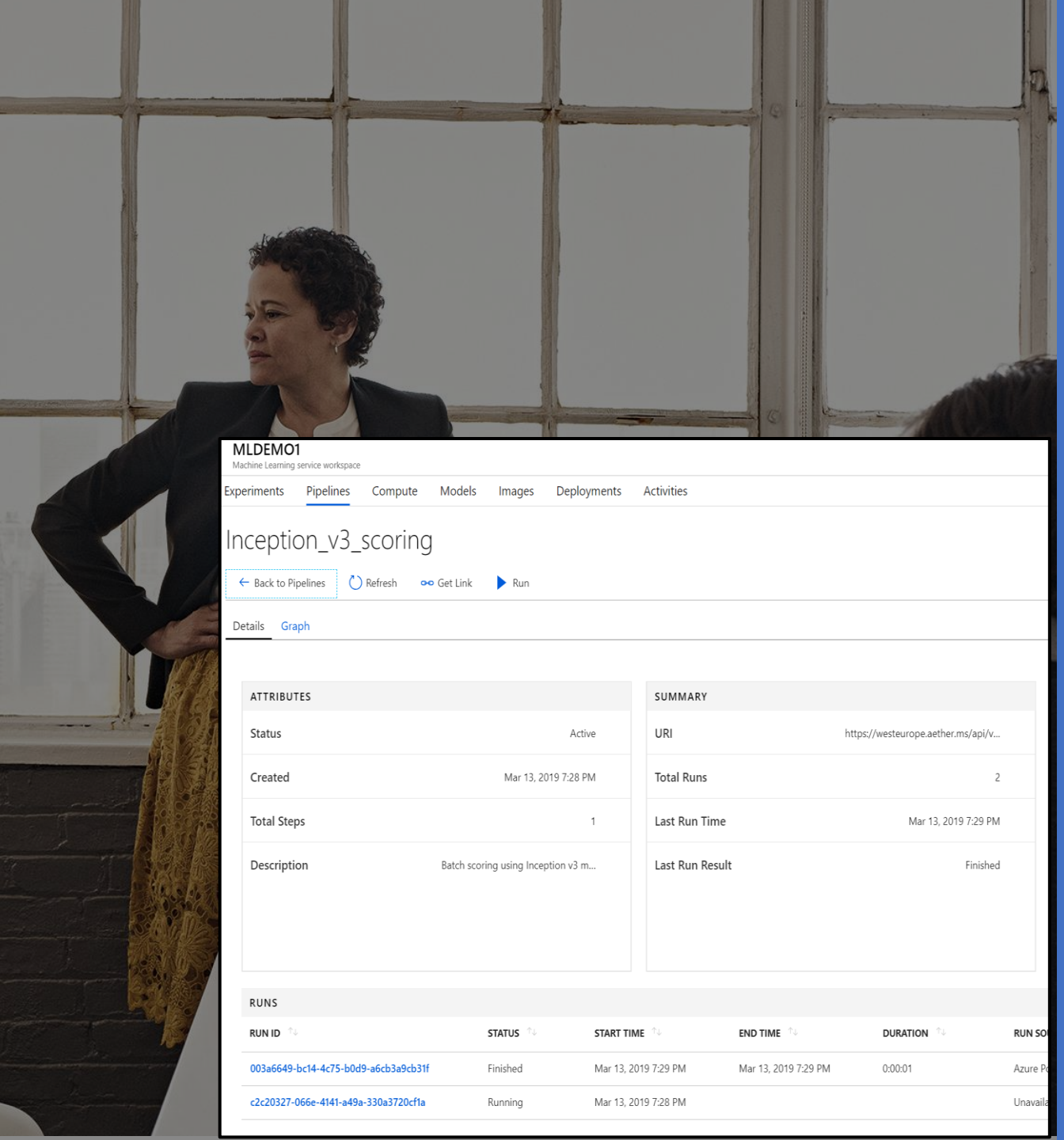
Primary key

XPHFGSDJDGYJDMLDKDMLNDKND

Secondary key

DNBJDBBDNDKENDJEBDUÖEÖEP3E

Security



MLDEMO1
Machine Learning service workspace

Experiments | Pipelines | Compute | Models | Images | Deployments | Activities

Inception_v3_scoring

← Back to Pipelines | Refresh | Get Link | Run

Details | Graph

ATTRIBUTES

Status	Active
Created	Mar 13, 2019 7:28 PM
Total Steps	1
Description	Batch scoring using Inception v3 m...

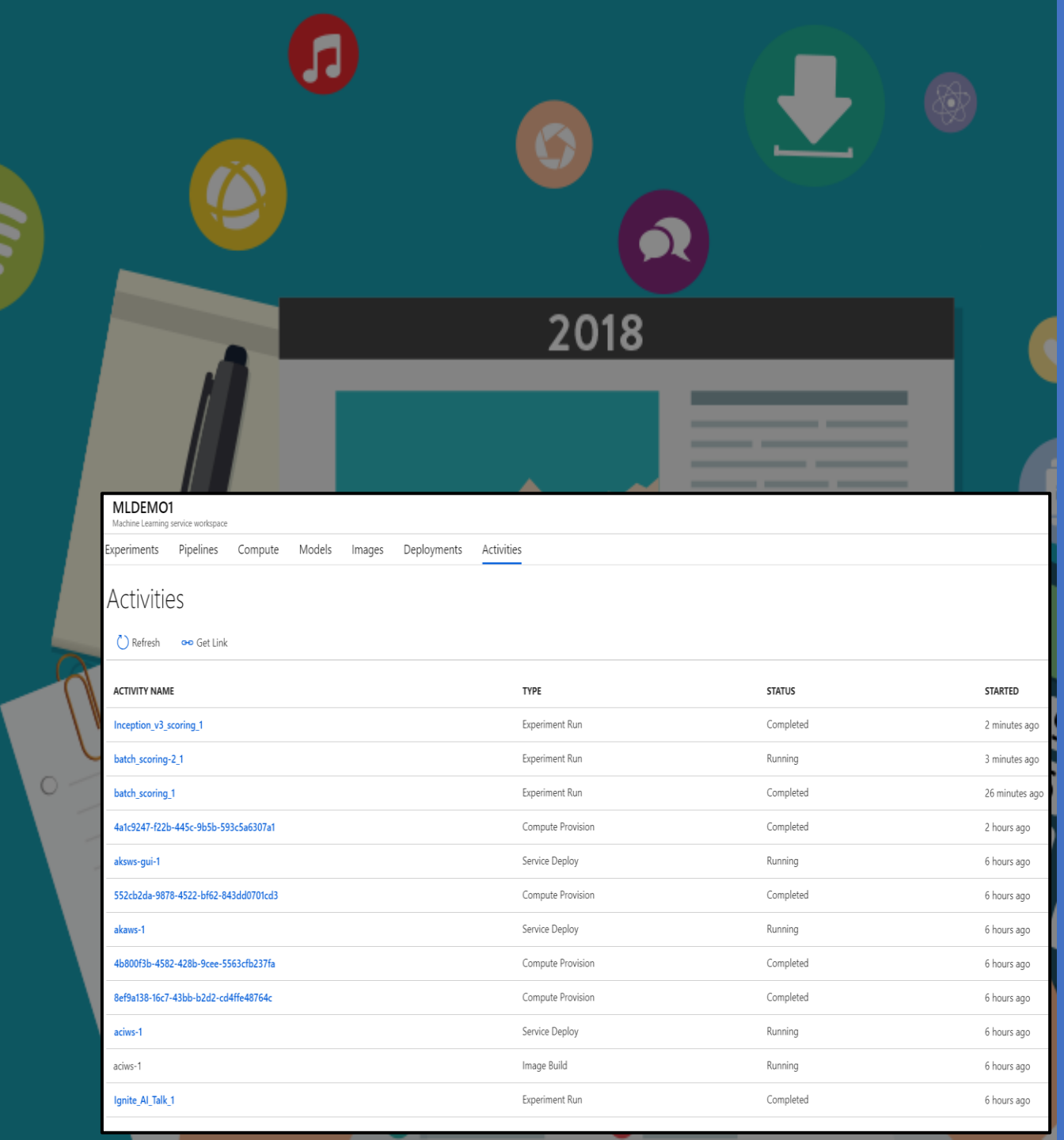
SUMMARY

URI	https://westeurope.aether.ms/api/v...
Total Runs	2
Last Run Time	Mar 13, 2019 7:29 PM
Last Run Result	Finished

RUNS

RUN ID	STATUS	START TIME	END TIME	DURATION	RUN SO
003a6649-bc14-4c75-b0d9-a6cb3a9cb31f	Finished	Mar 13, 2019 7:29 PM	Mar 13, 2019 7:29 PM	0:00:01	Azure P
c2c20327-066e-4141-a49a-330a3720cf1a	Running	Mar 13, 2019 7:28 PM			Unavail

Pipeline & CI/CD



MLDEMO1
Machine Learning service workspace

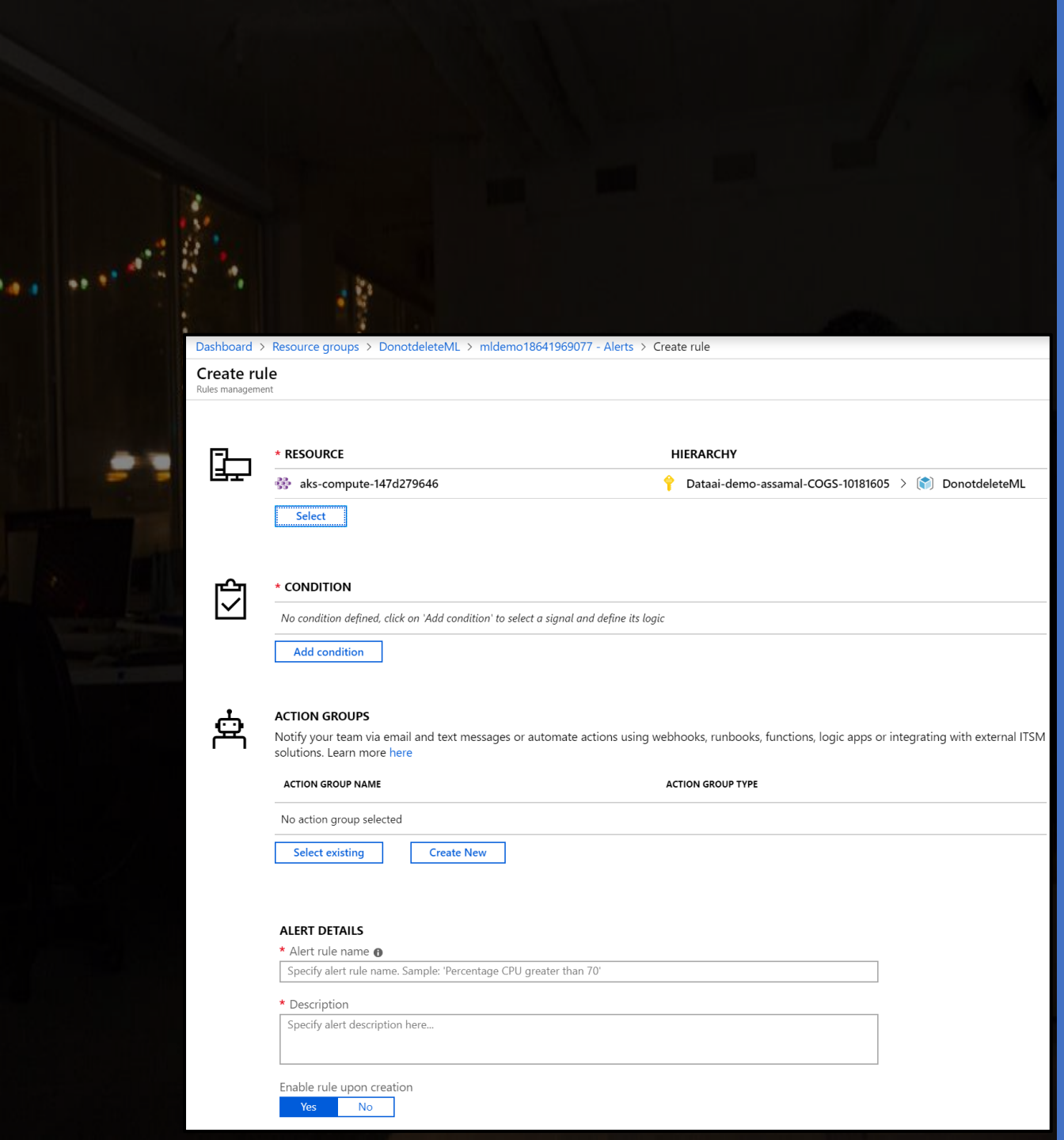
Experiments | Pipelines | Compute | Models | Images | Deployments | Activities

Activities

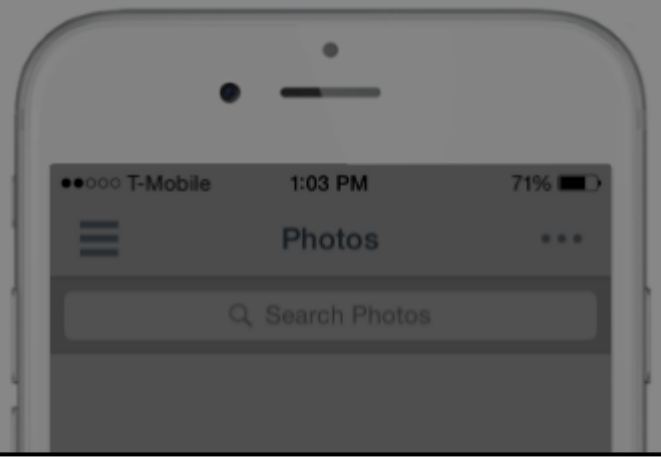
Refresh | Get Link

ACTIVITY NAME	TYPE	STATUS	STARTED
Inception_v3_scoring_1	Experiment Run	Completed	2 minutes ago
batch_scoring-2_1	Experiment Run	Running	3 minutes ago
batch_scoring_1	Experiment Run	Completed	26 minutes ago
4a1c9247-f22b-445c-9b5b-593c5a6307a1	Compute Provision	Completed	2 hours ago
aksws-gui-1	Service Deploy	Running	6 hours ago
552cb2da-9878-4522-bf62-843dd0701cd3	Compute Provision	Completed	6 hours ago
akaws-1	Service Deploy	Running	6 hours ago
4b800f3b-4582-428b-9cee-5563cfb237fa	Compute Provision	Completed	6 hours ago
8ef9a138-16c7-43bb-b2d2-cd4ffe48764c	Compute Provision	Completed	6 hours ago
aciws-1	Service Deploy	Running	6 hours ago
aciws-1	Image Build	Running	6 hours ago
Ignite_AI_Talk_1	Experiment Run	Completed	6 hours ago

Audit

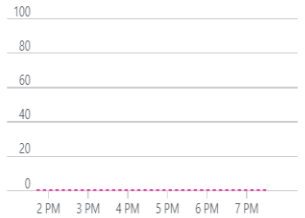

Dashboard > Resource groups > DonotdeleteML > mldemo18641969077 - Alerts > Create rule
Create rule
Rules management
* RESOURCE
HIERARCHY
aks-compute-147d279646
Dataai-demo-assamal-COGS-10181605 > DonotdeleteML
Select
* CONDITION
No condition defined, click on 'Add condition' to select a signal and define its logic
Add condition
ACTION GROUPS
Notify your team via email and text messages or automate actions using webhooks, runbooks, functions, logic apps or integrating with external ITSM solutions. Learn more here
ACTION GROUP NAME
ACTION GROUP TYPE
No action group selected
Select existing
Create New
ALERT DETAILS
* Alert rule name
Specify alert rule name. Sample: 'Percentage CPU greater than 70'
* Description
Specify alert description here...
Enable rule upon creation
Yes
No

Alert



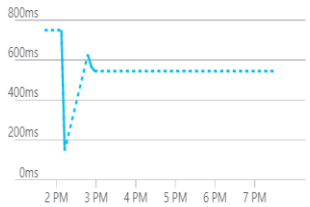
Show data for last: 30 minutes | 1 hour | 6 hours | 12 hours | 1 day | 3 days | 7 days | 30 days

Failed requests



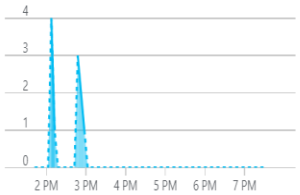
Failed requests (Sum)
mldemo18641969077
0

Server response time



Server response time (Avg)
mldemo18641969077
610.64 ms

Server requests



Server requests (Sum)
mldemo18641969077
11

Availability

Availability (Avg)
mldemo18641969077
--

Unique Users

Users (Unique)
mldemo18641969077
0

Latency

Move Delete Update

Resource group (change) : donotdeleteml
Location : West Europe
Subscription (change) : Dataai-demo-assamal-COGS-10181605
Subscription ID : 00a794e2-f9ed-41f6-b2a3-444ec0b61131

Login server : mldemo10560479236.azurecr.io
Creation date : 3/13/2019, 11:25 AM GMT+1
SKU : Basic
Provisioning state : Succeeded

Usage

Included in SKU 10.0 GiB
Used 3.80 GiB
Additional storage 0.00 GiB

ACR Tasks

Build, Run, Push and Patch containers in Azure with ACR Tasks. Tasks supports Windows, Linux and ARM with QEMU.

Learn more

Container security integrations

Aqua Security

Aqua provides development-to-production lifecycle controls for securing containerized applications.

Azure Marketplace

Twistlock

Providing vulnerability management and runtime protection across your environments.

Azure Marketplace

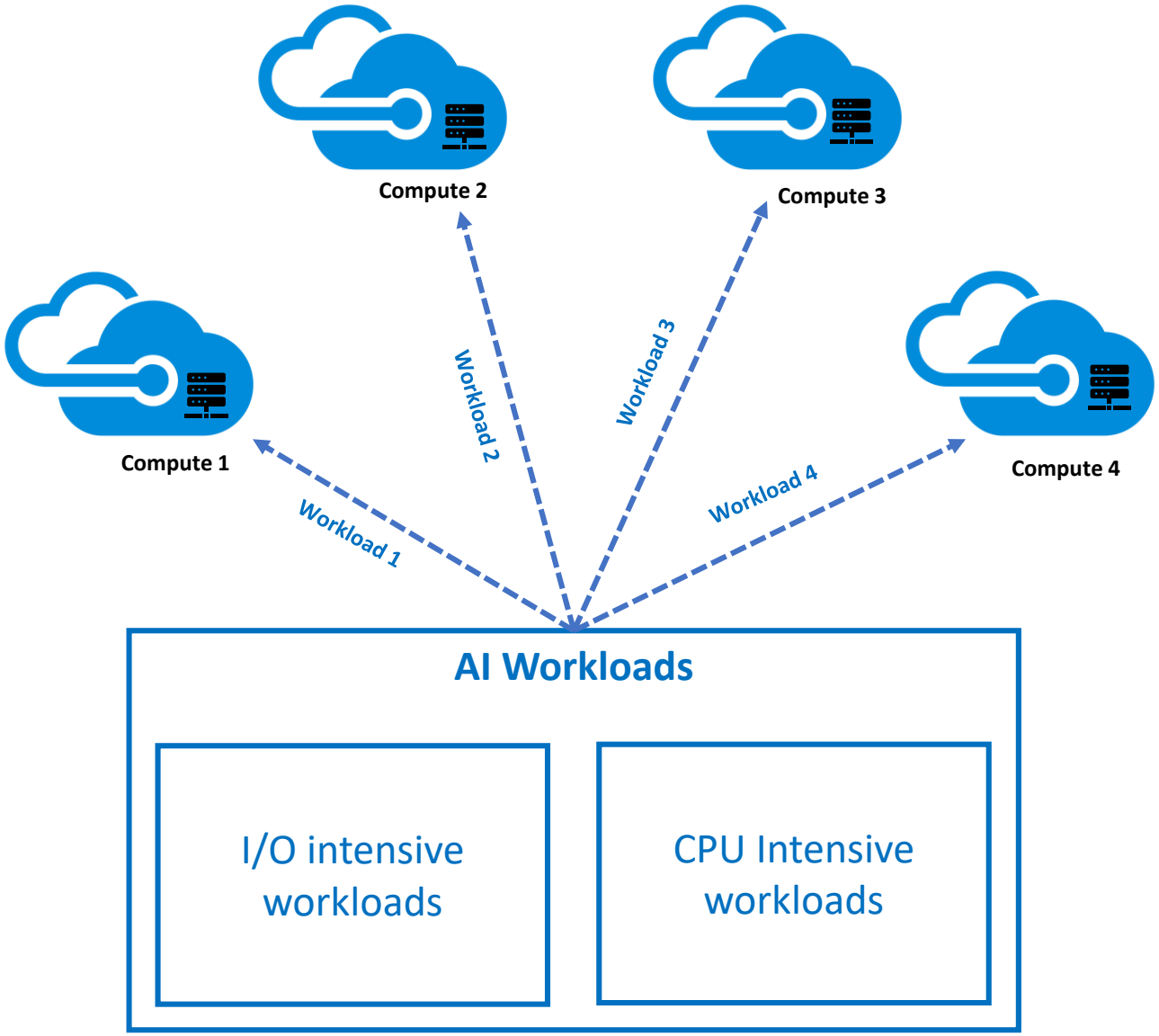
Registry metrics

Show data for time period

1 hour | 6 hours | 12 hours | 1 day | 7 days | 30 days

Portability

Another point to take care of…



Data Engineering vs. Data Scientist

Microsoft

Thank You !

Ashok S (Azure, BigData, IoT, Ml, AI, BoT)

Strategist, Speaker, Leader, Solution Architect (Data & AI) , Western Europe at Microsoft