Introduzione ad AKS per il Dev 3.0

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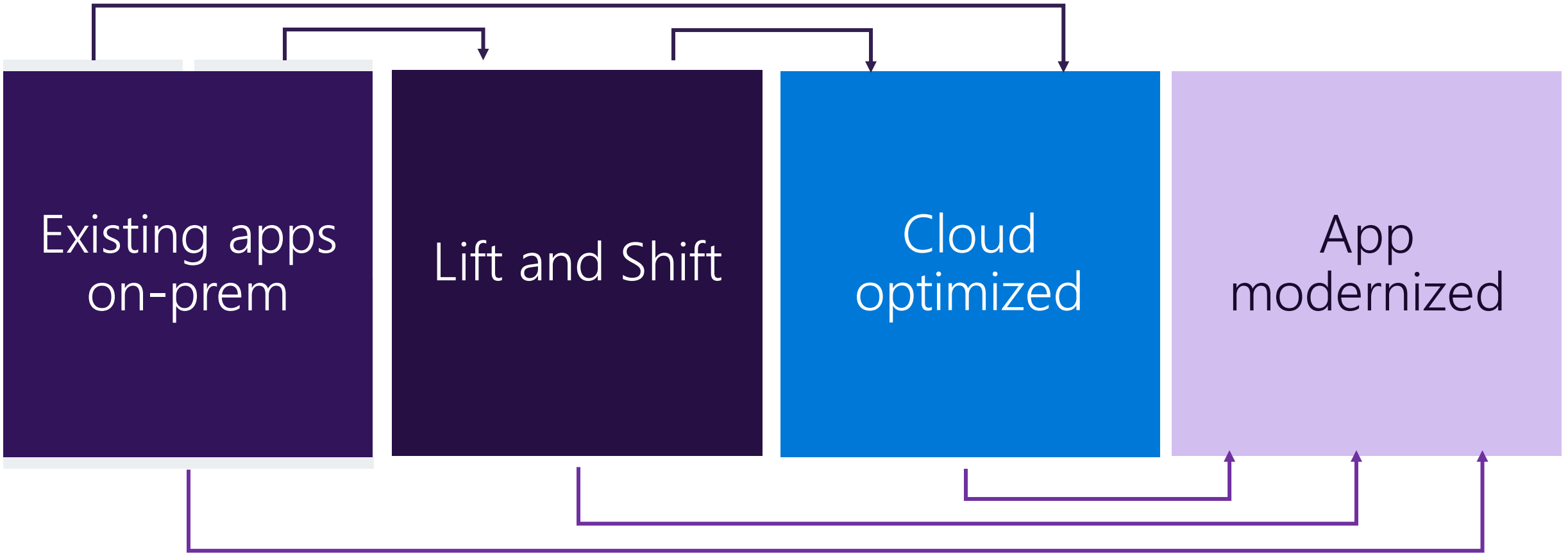
“Dev 3.0

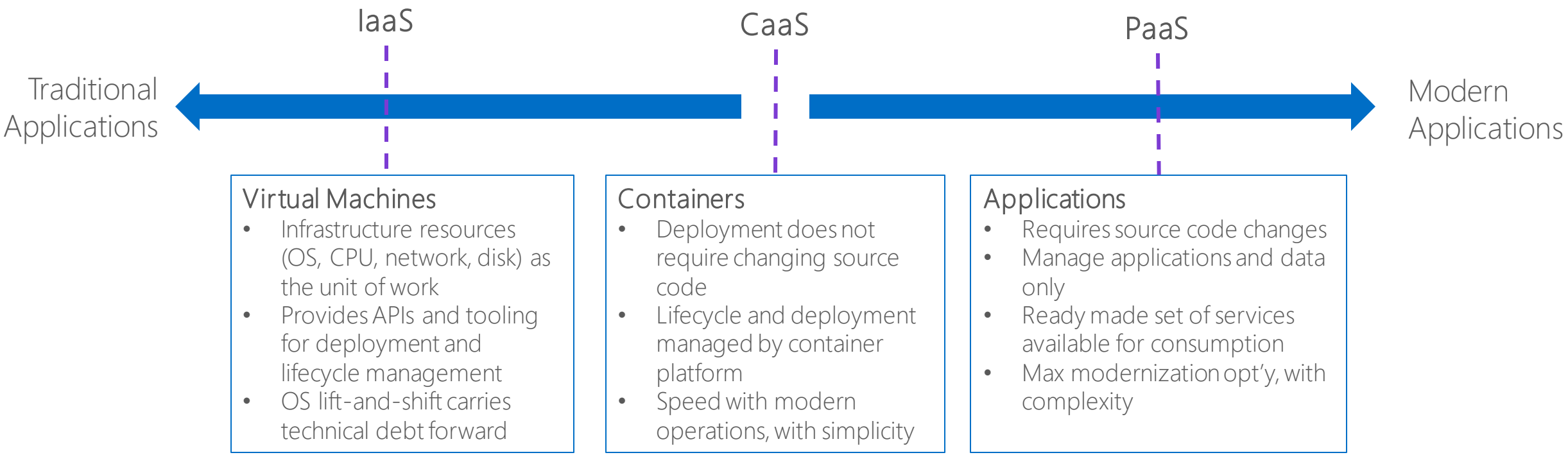
Application journey to the Cloud



Lift & Shift
Minimal code-changes

Architected for the cloud
modernized/refactor/rewrite

Containers on the spectrum of cloud platforms



Use case

Application Agility and Flexibility

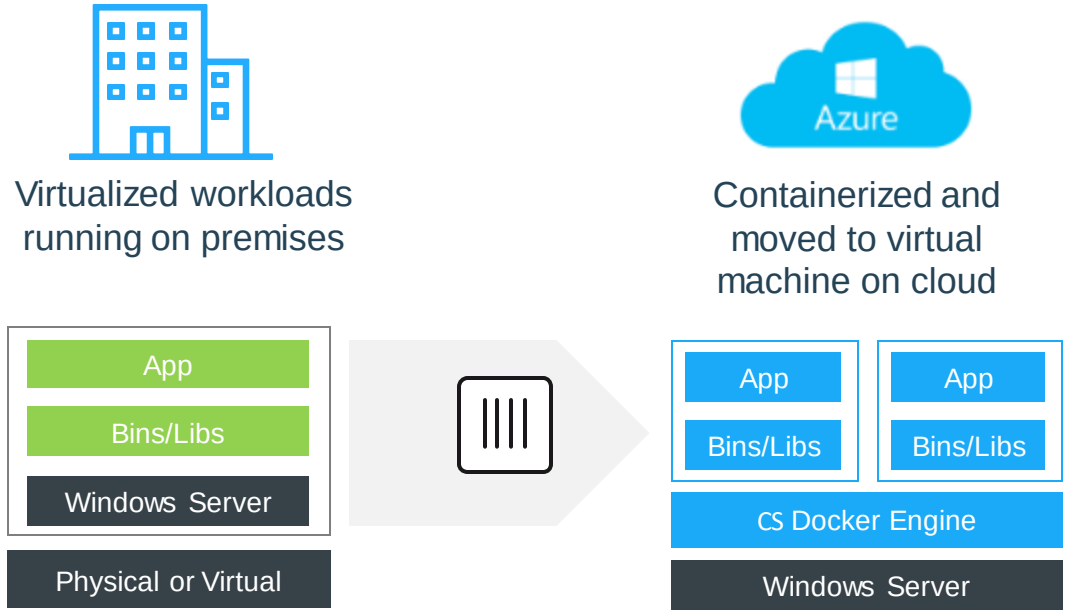
Standardize: Containers abstracts away the infrastructure and virtualization layers

No custom-configuring servers - Apps ship with their dependencies (IIS, .NET, Node, etc.)

Isolation: Two containerized apps with different .NET versions will run happily side by side

Portability: Containers move without friction from one environment to another – no recoding from virtual, on-prem, cloud

Lift and Shift: Containerize legacy apps gain portability



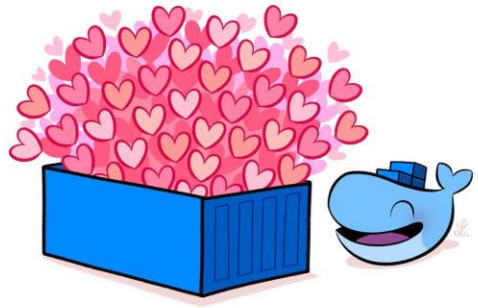
What is a Container?

A container image is a **lightweight, stand-alone, executable package** of a piece of software that includes everything needed to run it: code, runtime, system tools, system libraries, settings.

Available for both **Linux and Windows** based apps, containerized software **will always run the same, regardless of the environment**.

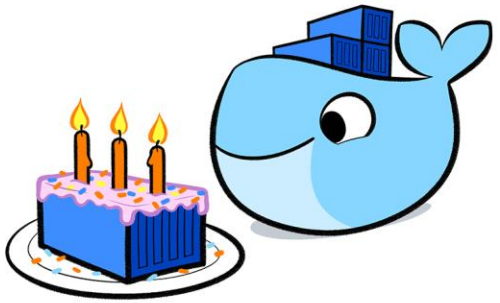
Containers isolate software from its surroundings, for example differences between development and staging environments and help **reduce conflicts between teams running different software on the same infrastructure.**

There are a few different container technologies on the market today.



A comparison with Docker & Kubernetes

Kubernetes	Docker Swarm
Developed by Google	Developed by Docker
Has a vast Open source community	Has a smaller community compared to Kubernetes
More extensive and customizable	Less extensive and less customizable
Requires heavy setup	Easy to set up and fits well into Docker ecosystem
Has high fault tolerance	Has low fault tolerance
Provides strong guarantees to cluster states, at the expense of speed	Facilitates for quick container deployment and scaling even in very large clusters
Enables load balancing when container pods are defined as services.	Features automated internal load balancing through any node in the cluster.



kubernetes

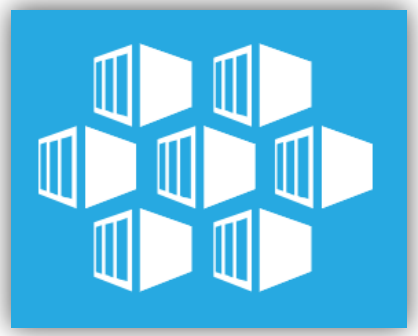
Container offering on Azure

Container Istances

Easily run containers with a single command

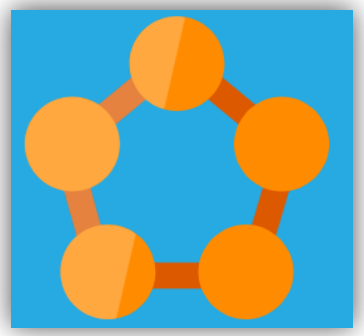
Web App for Containers

Deploy and run containerized web apps that scale



Kubernetes Service

Scale and orchestrate containers using Kubernetes, DC/OS or Docker Swarm



Service Fabric

Easily run containers with a single command

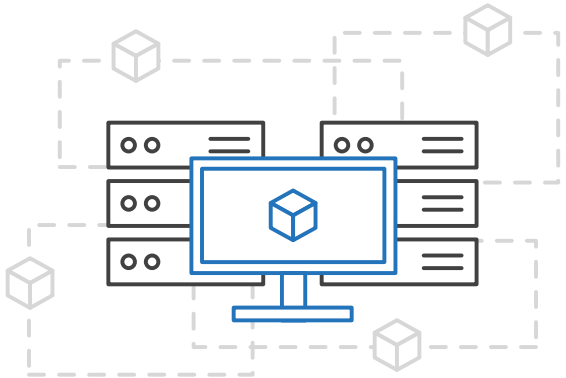
To get started with AKS, you should install the latest Azure CLI
https://docs.microsoft.com/en-us/cli/azure/install-azure-cli-windows?view=azure-cli-latest

*Source: http://azureinteractives.azurewebsites.net/Azure101Cards/default.html

Azure Kubernetes Service (AKS)

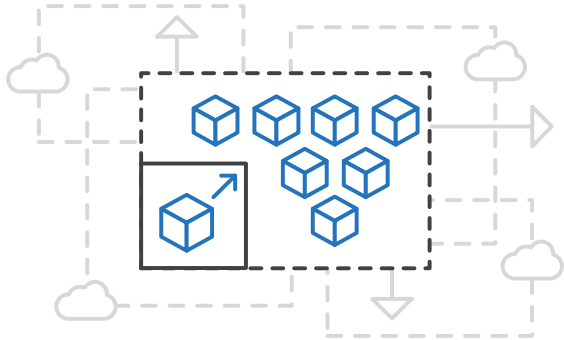
Azure Kubernetes Service (AKS)

Simplify the deployment, management, and operations of Kubernetes



Focus on your containers not the infrastructure

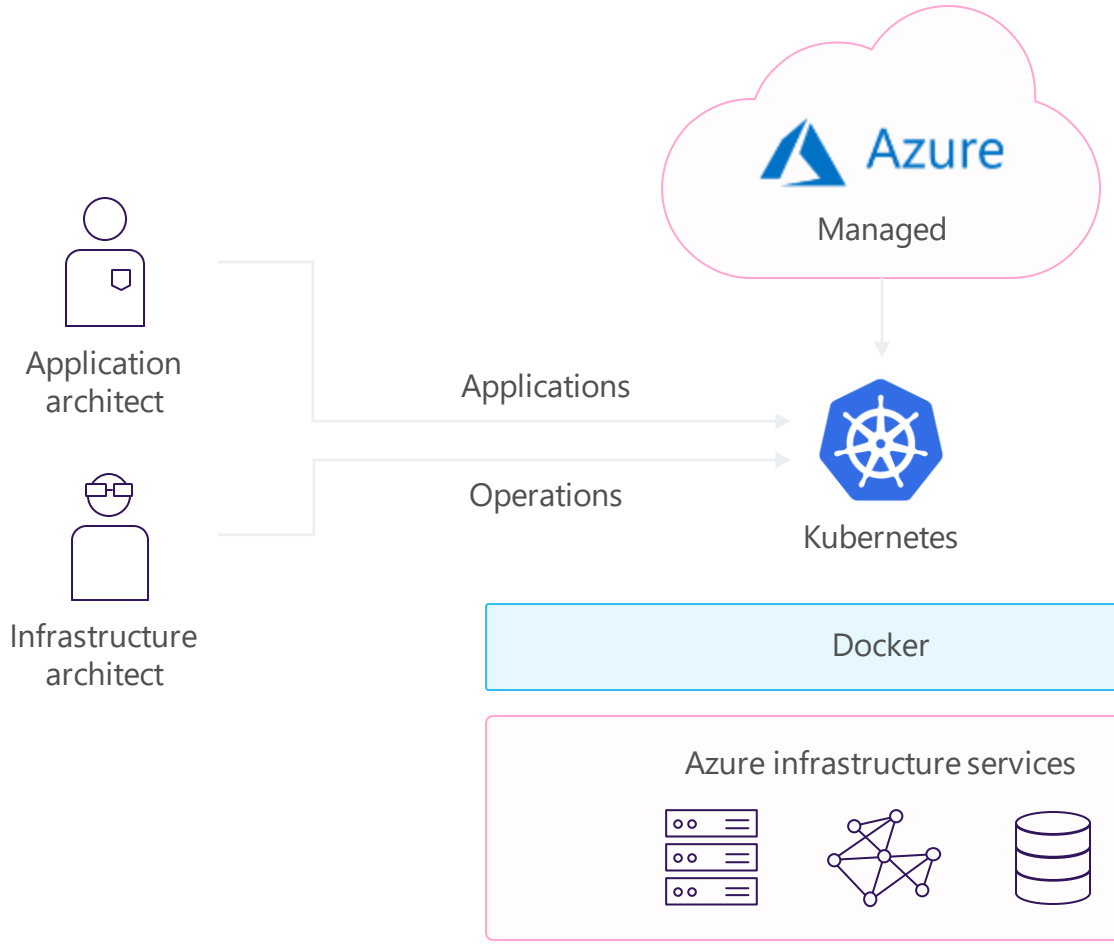
Work how you want with open-source APIs



Scale and run applications with confidence

Azure Kubernetes Service (AKS)

A fully managed Kubernetes cluster



- Managed control pane
- Automated upgrades, patches
- Easy cluster scaling
- Self-healing
- Cost savings

Azure Kubernetes Service (AKS)

Azure Kubernetes Service (AKS)

Get started easily

```
> az aks create -g myResourceGroup -n myCluster --generate-ssh-keys
\ Running ..

> az aks install-cli
Downloading client to /usr/local/bin/kubectl ..

> az aks get-credentials -g myResourceGroup -n myCluster
Merged "myCluster" as current context ..

> kubectl get nodes
NAME                          STATUS    AGE       VERSION
aks-mycluster-36851231-0      Ready     4m        v1.8.1
aks-mycluster-36851231-1      Ready     4m        v1.8.1
aks-mycluster-36851231-2      Ready     4m        v1.8.1
```

Azure Kubernetes Service (AKS)

Azure Kubernetes Service (AKS)

Manage an AKS cluster

```
> az aks list –o table
Name                Location    ResourceGroup     KubernetesRelease  ProvisioningState
------------------  ----------  --------------  -------------------  -------------------
myCluster           westus2     myResourceGroup               1.7.7  Succeeded
```

```
> az aks upgrade -g myResourceGroup -n myCluster –-kubernetes-version 1.8.1
\ Running ..
```

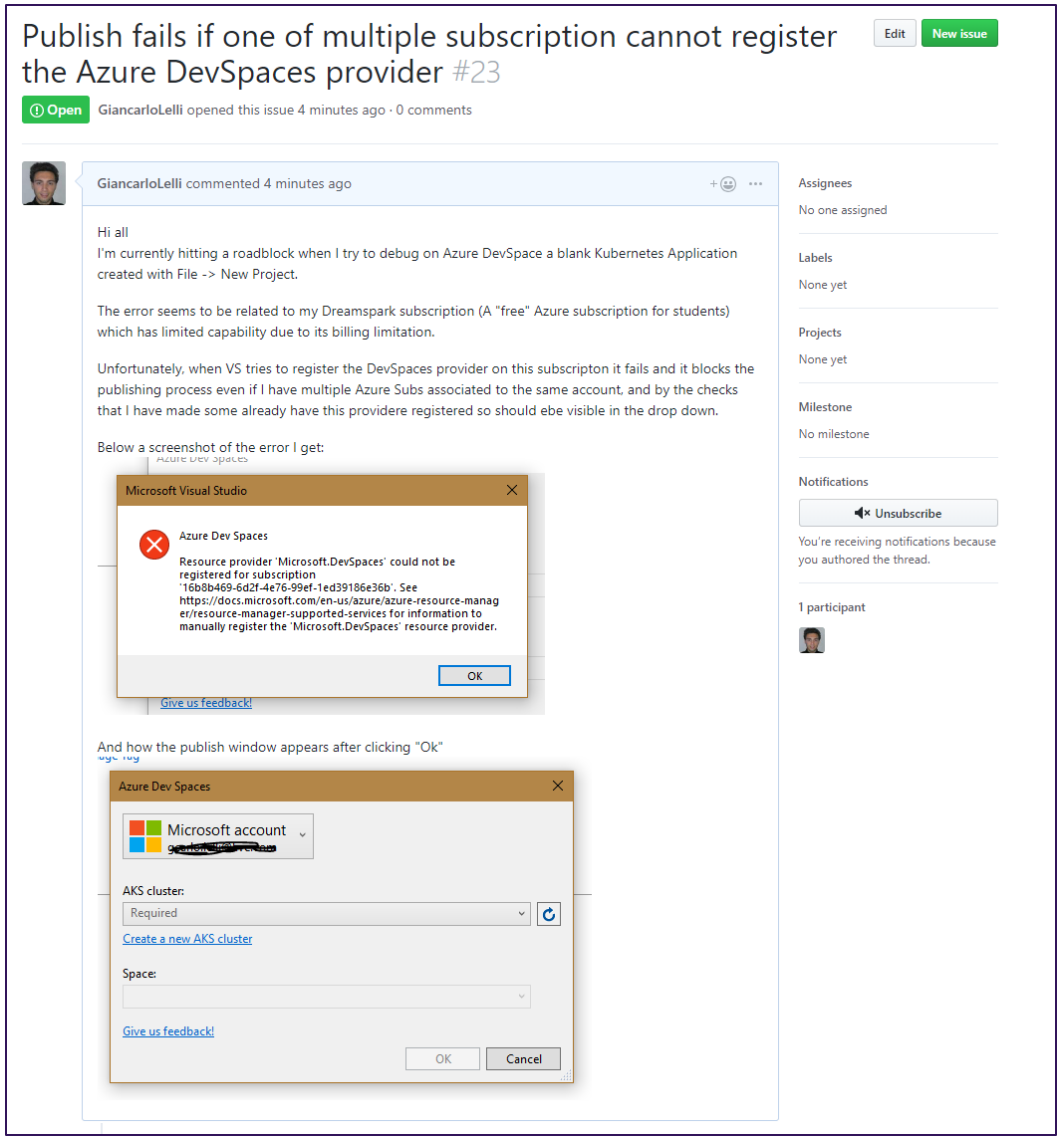
```
> kubectl get nodes
NAME                          STATUS    AGE       VERSION
aks-mycluster-36851231-0      Ready     12m       v1.8.1
aks-mycluster-36851231-1      Ready     8m        v1.8.1
aks-mycluster-36851231-2      Ready     3m        v1.8.1
```

```
> az aks scale -g myResourceGroup -n myCluster --agent-count 10
\ Running ..
```

var K8s = new Dictionary<string, string>();

- Overall definition
- Master
  - etcd
  - kube-apiserver
  - kube-controller-manager
  - kube-scheduler
- Node
  - Runtime
  - kubelet
  - kube-proxy
- Pods
- Deployments
- Replication controller
- Services

Integrated Tooling...ops ☹



Publish fails if one of multiple subscription cannot register the Azure DevSpaces provider #23

Edit | New issue

Open | GiancarloLelli opened this issue 4 minutes ago · 0 comments

GiancarloLelli commented 4 minutes ago

Hi all
I'm currently hitting a roadblock when I try to debug on Azure DevSpace a blank Kubernetes Application created with File -> New Project.

The error seems to be related to my Dreamspark subscription (A "free" Azure subscription for students) which has limited capability due to its billing limitation.

Unfortunately, when VS tries to register the DevSpaces provider on this subscripton it fails and it blocks the publishing process even if I have multiple Azure Subs associated to the same account, and by the checks that I have made some already have this providere registered so should ebe visible in the drop down.

Below a screenshot of the error I get:

And how the publish window appears after clicking "Ok"

Assignees
No one assigned

Labels
None yet

Projects
None yet

Milestone
No milestone

Notifications
Unsubscribe
You're receiving notifications because you authored the thread.

1 participant

URL:
https://github.com/Azure/dev-spaces/issues/23

Demo

Grazie

Domande?


Giancarlo Lelli


@itsonlyGianca


Giancarlo Lelli