

LINKBYNET



ENABLE YOUR TRANSFORMATION. SHARING SUCCESS.



CONTENT

1. Presentation of containers and orchestration
2. AKS, Kubernetes in Azure cloud
3. Our offer



CONSULTING

1- Presentation of containers and orchestration



Portability is finally a reality

The app is assembled with all its dependencies in a container and can be run on any cloud or server!



Accelerated deployment

Containers contain the minimum needed to start the application, which reduces their size and allows for very fast deployments.



Continuous integration boosted

Continuous integration can finally simply test the application in its entirety. Continuous deployment is made easier.



Innovation tenfold

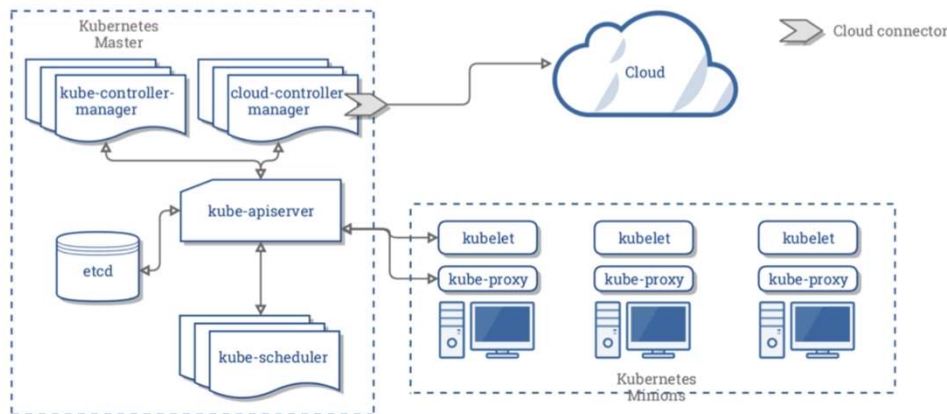
Easily available, disposable and shareable containers, simplifying innovation processes



The need for orchestration

Containers provide many benefits but it becomes complex to manage them when the application grows and when scaling up or down is needed, especially over more than one VM or server.

Container orchestration provides a great way to deal with multiple instances of applications spread out over several nodes, it helps with availability concerns, load balancing and easy scaling. Kubernetes is one of the best orchestration tool at the moment and with AKS you can leverage the power of orchestration in Azure.



Kubernetes
Architecture



Our approach and how do we support you?

The objective of the mission is to support your teams with the implementation of the AKS platform in a business and technical context. The first step is to build skills on the platform, identify and master the best practices related to the implementation and then management of AKS services for the parts provided by your infrastructure team.

To this end, we propose to start with an acculturation of the Ops team to container technology, Kubernetes and more specifically the use of AKS services. Second, applications, deployment processes and the software plant as a whole will need to be audited to identify recommendations for implementing AKS services efficiently.



**Container and
Kubernetes –
AKS training**

**Environment
audit Recommendation**



Step 1 - Training

Container and **Kubernetes-AKS** training will have to be carried out beforehand for OPS teams. These training courses have a dual purpose:

- Enable teams to have a good understanding of the benefits of containerization and Kubernetes.
- Have the skills to manage the AKS services that will be the team's responsibility after its implementation.
- The training will be based on the following points:
 - Introduction to containers, Dockerfiles and images
 - Manage containers manually
 - Introduction to Kubernetes
 - Pods, ReplicaSet and Deployment overview
 - Networking, storage and security
 - Containers and microservices architecture
 - Focus on AKS services



Step 2 - Audit

The audit is done on the perimeter of the application(s) that are targeted for containerization. On this perimeter, the audit focuses on **applications, infrastructure** and then on **testing and deployment** processes. This audit will be carried out by a DevOps consultant.

For infrastructure :

- Systems version
- System/application dependencies
- Security

For applications :

- Storage of configurations
- Files systems use
- Data usage
- Stateful / Stateless

Testing and deployment process:

- Type of application test
- Maturity of the CI / CD
- Performance and quality test



Step 3 - Recommendation

The audit will allow us to highlight how best to fit to the **AKS platform** in view of the needs and constraints identified and to identify a **roadmap** to implement for the adoption of these services. This will allow a recommendation report to be built for your Ops team. The purpose of this report will be to:

- Highlight best practices to use in implementing AKS services to meet expected security and infrastructure constraints ;
- Propose a target architecture adapted to the need and to existing applications
- Potentially identify AKS services that are incompatible with these same constraints and propose alternative solutions ;
- Identify the items that will be in Microsoft scope at the end and which ones will need to be managed by your Ops team. This will allow us to follow on this first step if necessary and to adjust the skills in order to make the team autonomous.



CONSULTING

And After?

Below are some examples of the service we provide to our customers that will allow us to support you all the way to production:

- Containerization / 'Kubernetesization' of the application for project teams;
- Deploying an application in production on AKS;
- Deployment of a hybrid AKS/Private Cloud infrastructure;
- Training - complementary AKS skills transfer;


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Consulting

A teal square containing a white line-art icon of two hands shaking, symbolizing a partnership or agreement.

Software

A dark blue square containing a white line-art icon of an open cardboard box, representing software or digital products.

Managed Services

A red square containing a white line-art icon of the Eiffel Tower, symbolizing global reach or a specific service offering.

Cybersecurity

A red square containing a white line-art icon of a shield with a small circle on top, representing protection and security.

Managed Services

An orange square containing a white line-art icon of a hand holding a ball, symbolizing support and service.

Thank You