

UNLOCKING OPPORTUNITIES

ON THE CLOUD THROUGH
CONTAINER TECHNOLOGY



TABLE OF CONTENT

1

INTRODUCTION:

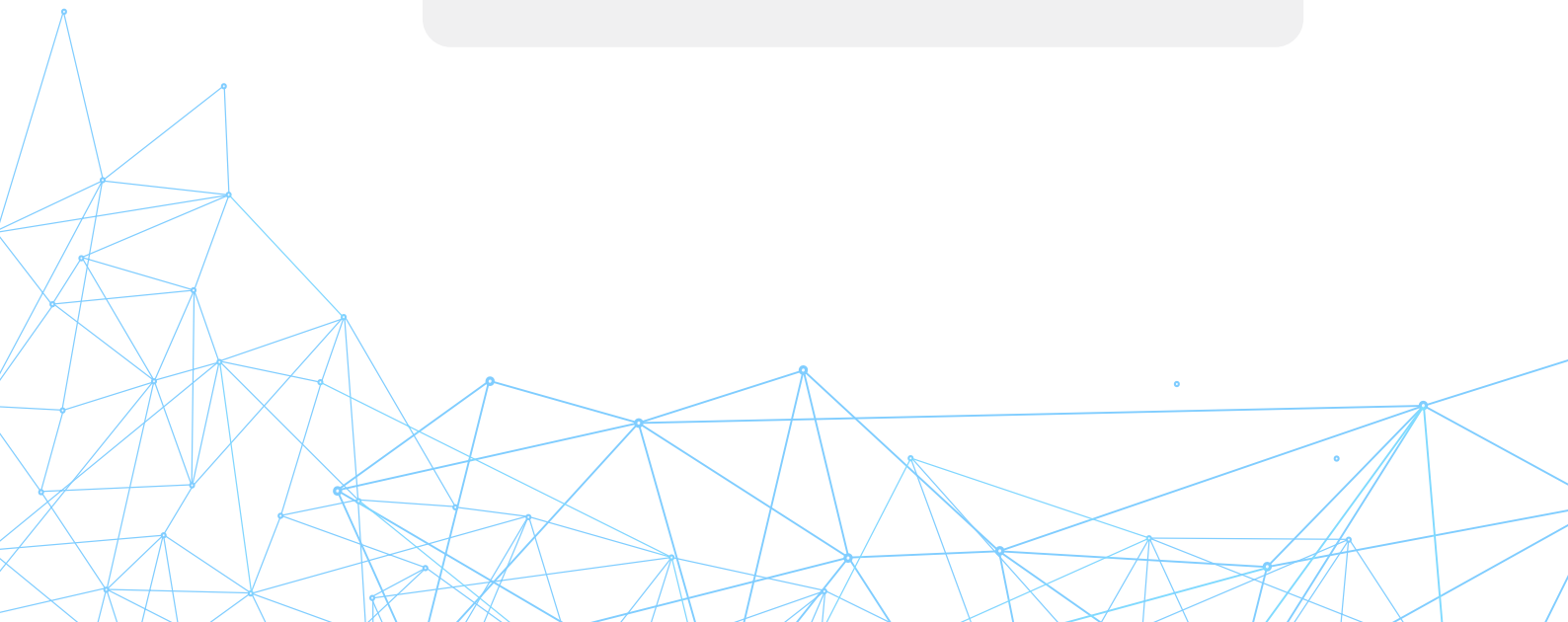
Cloud and container technology

2

How does embracing container technology help unlock the value of the cloud?

3

Enhance your cloud transformation journey with Skillmine.



1.

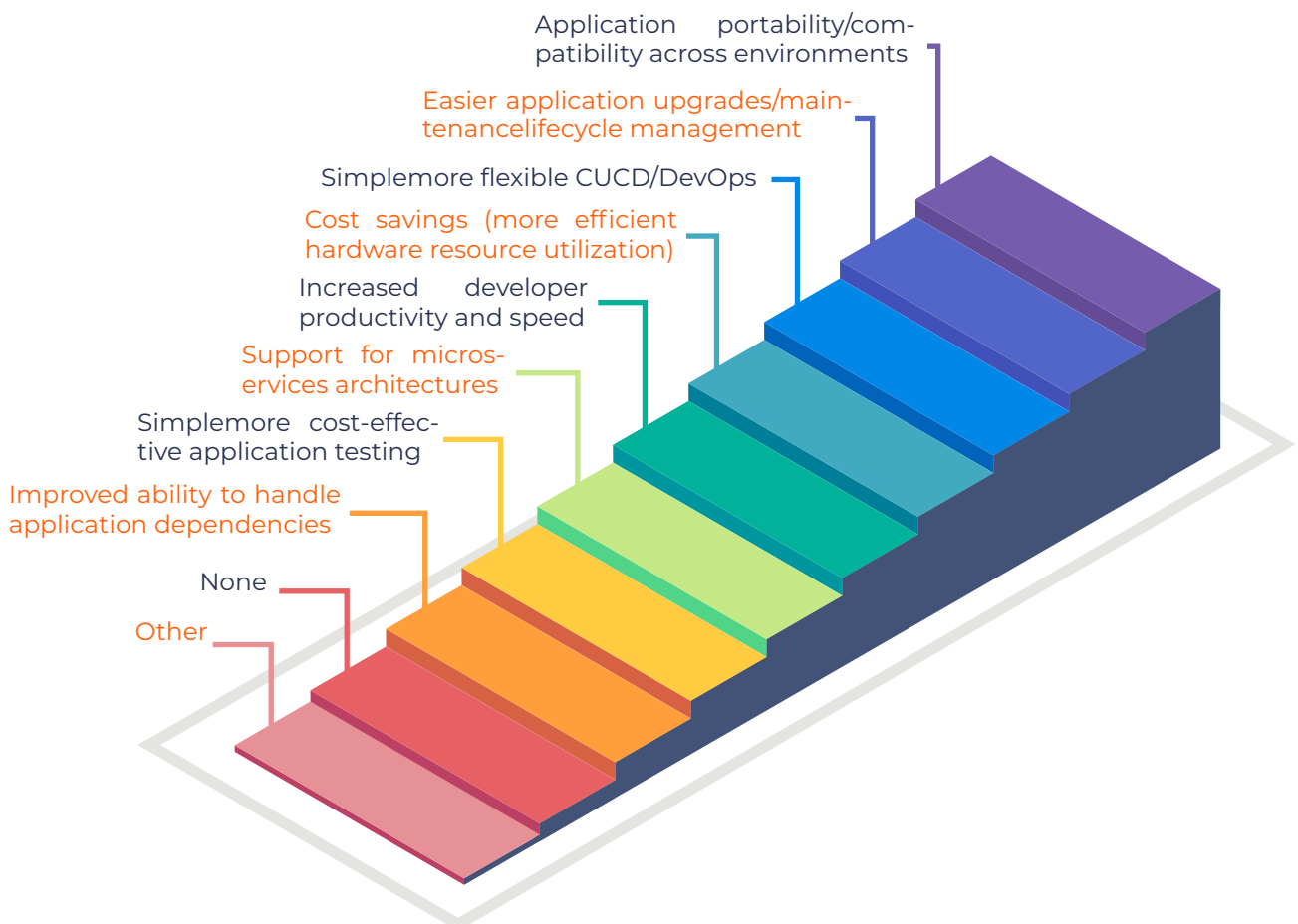
INTRODUCTION:

Cloud and container technology

An age of outstanding application development has begun due to the cloud, which has altered the IT industry's format and market structure. Businesses can concentrate more on creating more commercially viable solutions that fulfil their mission using cloud and container technologies are the greatest option for enhancing cloud service capabilities.

According to a survey by data platform Statista, 96% of respondents believe that container technology will be used in a proof-of-concept, development, and test environments going ahead. This suggests that when businesses feel more at ease with containers, they migrate more workloads.

The term "**container technology**" describes a way to package a programme. An application can operate with isolated dependencies when packaged in a container. As a result, moving the confined application between other environments is made simple.





How does
embracing container
technology help unlock
the value of the cloud?



2.

CONTAINERS: THE SHORTEST ROUTE TO UNLOCK CLOUD VALUE

Containers will continue to gain prominence as firms move forward with their digital transformation efforts because of the enormous opportunities they offer. There are several reasons why businesses are turning more and more to containers. Improved IT operations, enhanced innovation and their potential to address changing end-user expectations for more digital and individualised experiences are a few of them.

What are containers?

A container consists of a full runtime environment, including an application and all of its dependencies, libraries, other binaries, and configuration files needed to run it. Disparities in Operating System (OS) distributions and the underlying infrastructure are hidden by containerizing the application platform and its dependencies.

A physical server running three virtual machines (VMs) would have a hypervisor and three operating systems. On the other hand, a server running three containerized apps runs just one operating system, and each container shares the kernel with the others.



Benefits of containerization

A container consists of a full runtime environment, including an application and all of its dependencies, libraries, other binaries, and configuration files needed to run it. Disparities in Operating System (OS) distributions and the underlying infrastructure are hidden by containerizing the application platform and its dependencies. A physical server running three virtual machines (VMs) would have a hypervisor and three operating systems. On the other hand, a server running three containerized apps runs just one operating system, and each container shares the kernel with the others.



- It truly is "write once, run anywhere," thanks to the portability between many platforms and clouds.
- Efficiency by using significantly fewer resources than VMs and providing higher computational resource utilisation.
- Better scalability and quicker app startup.
- Flexibility to work on bare metal systems or virtualized infrastructures.
- The agility that enables integration of developers into their current DevOps environment.
- Improved delivery speed of enhancements. Microservices-based containerization of monolithic applications enables development teams to build functionality with independent scaling and life cycle policies.
- Enhanced security by application isolation from the host system and one another.



The technology behind containers was first developed and used by internet enterprises. Container technology has become commonplace thanks to a cloud-native ecosystem with open standards. Containers are being used by more businesses and developers to create apps and spread the advantages of this technology.

These days, containers have become a standard for application distribution and delivery, which can decouple applications from the underlying operating environment. It facilitates the seamless operation of applications across various infrastructures. The upper-layer application abstractions built on top of it, like service grids and microservices, gradually set the bar for the modernization and evolution of application architecture.



Containers in cloud computing

In cloud computing, containers are the common software unit for packaging programs and associated dependencies. As a result, an application could function efficiently and swiftly in many computing settings. Containers offer a logical packaging method that abstracts applications from the real settings in which they are used.

Deploying container-based apps is made simple and reliable by the decoupling relationship in a container in cloud computing. Containers eliminate the need to care about the target environment. The target environment could be a developer's personal laptop, a private data centre, or the public cloud.



Containers facilitate the differentiation of crucial application development issues. Developers could, for instance, pay close attention to dependencies and application logic. On the other hand, the operations team can place more emphasis on deployment and management. The fact that each member of the application development team can concentrate on critical functions is a positive of containers.

Container-based cloud-native technology helps businesses and developers build on the cloud by utilising an open and standardised technological infrastructure. Operating a fault-tolerant, elastically scalable system, simple to manage and observe has emerged as the quickest way to realise the value of the cloud.

Enhance your cloud transformation journey with Skillmine

Skillmine leverages market-leading container solutions to enable enterprises to make data-driven decisions as they embark on a cloud transformation journey.

Skillmine's cloud experts, with over a decade of experience, create cloud solutions that leverage containerization to address questions relating to the availability, scalability, and competitiveness of cloud-native applications.





How **Skillmine** enabled a leading e-Commerce platform to ensure predictable, repeatable builds and deployments?



A leading eCommerce platform allows enterprises to build and run online stores and retail point-of-sale (POS) systems. The business wanted to make sure they were using the best tools available to enable the evolution required to meet rising customer demand. Even though it had always been a cloud-based business, creating and managing its e-commerce cloud with its own data centres, it aimed to use the container-based cloud's immutable infrastructure advantages to improve customer service.

The company approached Skillmine to develop a cloud transformation strategy. Skillmine was able to evolve the business towards a "cloud-native"-like architecture without having to "touch the code". Also, there were no impacts at the application level. Skillmine's cloud service could guarantee predictable, repeatable builds and deployments, easier and more reliable rollbacks, and the eradication of configuration management drift, to name a few.

Want to transform your business?



E: info@skill-mine.com

W: www.skill-mine.com