FUJITSU

Running IT anywhere

How containers
make IT more agile

At Fujitsu, we have a mission: to help our customers generate value from data. This also requires that operational processes in application development and IT operations as well as infrastructures are modernized. Only then can IT departments gain the agility to act quickly and efficiently in a world characterized by ever more uncertainties and complexity. With applications developed as microservices, deployed in containers and orchestrated with technologies such as Kubernetes, they can achieve this flexibility and speed.

For whom the topic is of interest:

IT professionals in companies of all sizes and in all industries.

Benefits of container technologies:

- **Lightweight:** containers are much smaller than VMs

- **Fast provisioning:** containers can be provisioned in seconds or even milliseconds

- **Portable and platform-independent:** containers include all their dependencies. Software therefore only needs to be written once and can run anywhere

- **Better infrastructure utilization:** containers can run at a much higher density than VM workloads – reducing power requirements

- **Greater efficiency:** containers enable faster deployment, patching or scaling of apps

- **Better application development:** containers support agile DevOps processes, accelerating development, testing and production cycles

Inspired by the idea of shipping containers, which revolutionized the transportation of goods overseas, container technology allows applications to be written once and then run without reconfiguration on laptops, in cloud, IoT, edge or on-premises environments. Containers optimally support DevOps principles and Continuous Integration/Continuous Delivery (CI/CD) because differences in test and production environments no longer matter – since all dependencies are encapsulated in the container. Containers thus promote productivity in collaboration between development (Dev) and IT operations (Ops). As a result, problems can be solved faster and more effectively. The bottom line is more efficient application development, higher quality applications and shorter time to market.
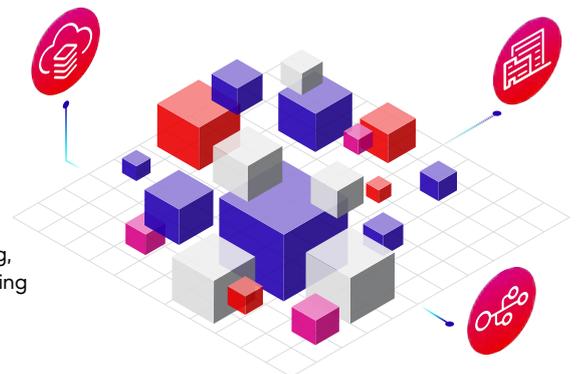
Containers help solve challenges in developing, deploying, and maintaining applications.

intel. | SUSE | NetApp®

Long downtimes because new releases have to be installed are unacceptable in digital business. Here lies one of the great advantages of applications with microservices architecture. If, for example, a bank wants to provide new features for downloading account statements in its online banking application, then it is not necessary to take the entire application offline, but only to replace the corresponding container.

Such loosely coupled features also make it possible to scale applications quickly and easily. Providers of video and music streaming services, social media platforms, e-commerce platforms or online ticketing platforms therefore rely on the microservices architecture and containers. But companies in other industries also benefit from these technologies. In industry, the efficiency and performance of manufacturing plants can be optimized in this way, and in retail, logistics, healthcare, or public authorities, individual processes and services can be further developed independently of one another.

Containers are also proving their worth in AI applications, which often require a wide variety of software packages to be deployed together. Containerizing these greatly simplifies deployment. This is also true in multi- and hybrid-cloud scenarios, where containerized applications can be quickly moved between on-premise and cloud environments and vice versa. The rollout of containers across the IT landscape continues to gather pace. There are plenty of options such as the particular interest in using containers for AI development, or for data protection solutions. That's why Fujitsu introduced the K8s Test Drive, based on the DX Innovation Platform.

Why Fujitsu? – Where to start? – How to stay flexible?

As a platinum member of the Cloud Native Computing Foundation (CNCF), Fujitsu is driving the development of cloud native applications and services. As a Kubernetes Certified Service Provider, we also offer customers comprehensive consulting and services as well as innovative solutions.

One example is Fujitsu Enterprise Postgres for Kubernetes. The hybrid, platform-independent, multi-cloud database leverages open container technology to enable a move to the cloud without being tied to a cloud provider.

But where to start? Building a business case for innovative projects can be challenging if you don't have the IT resources available, to determine the specific requirements of the project. The Fujitsu DX Innovation Platform provides the unique opportunity to overcome this challenge – with the K8s Test Drive.

Leverage our expertise to make your IT more agile with container technology.

- **Consulting and solution design:** leverage our expertise in business, technology and services to co-create solutions.
- **Application modernization:** modernize your applications with us to take full advantage of containers.
- **DX Innovation Platform:** develop a feel for containers by running hands-on scenarios for free. Also experience how you can sustainably improve performance, utilization and profitability with a state-of-the-art infrastructure.
- Stay **flexible with consumption based IT services:** Fujitsu uSCALE delivers flexible, on-premise IT infrastructures "as-a-service" solutions via monthly consumption-based billing based on actual usage.

Learn more about our innovative solutions and the DX Innovation Platform:

www.fujitsu.com/global/products/data-transformation/