

# Container-as-a-Service (CaaS)

Cloud Infrastructure



As digital transformation gains rapid momentum, enterprises must urgently modernize their IT landscapes ahead of their competitors. However, heterogeneous infrastructure and high-upkeep application technology stacks frequently hold back these projects. Legacy technologies such as mainframe or AS400, x86 servers, and several other infrastructure components add to the fragmentation, stretching enterprises' IT budgets. Containers could address this by easing the transition/modernization of IT assets, thus accelerating the software development lifecycle. This is achieved by packaging different applications (traditional, microservices, Windows, Linux, mainframe, etc.) into a consistent format, regardless of both application type and destination platform.

TCS offers an easy-to-use Container-as-a-Service solution for enterprises eager to leverage containers for simplifying IT maintenance, upgrade, and transformation. It reduces IT costs, while enabling the agility needed to quickly develop modular code, reducing the entire IT lifecycle and accelerating go-to-market.

## Overview

Enterprises undergoing digital transformation risk several challenges along the way. Applications could be tightly integrated with the software and the underlying hardware. As a result, changes to the computing environment involves immense efforts in application refactoring. Also, the IT function incurs high overheads for infrastructure resources, as there are dedicated hosts for every application. Traditional systems not portable across environments, costing IT teams precious time for deployment, patching, and scaling. To address this, enterprises need container technology to eliminate IT fragmentation and introduce a high degree of standardization. Packing IT components into a consistent formation, containers can run virtually anywhere: on any OS, on virtual machines or bare-metal environments, in on-premise data centers, and in the public cloud.

Tata Consultancy Services' (TCS') Container-as-a-Service enables IT and DevOps professionals to deploy, manage, and scale container-based applications and services easily, reducing application delivery cycle times and improving business agility. It is a complete framework built on top of our TCS Enterprise Cloud Platform. Powered by Kubernetes and Docker – TCS' Container-as-a-Service allows enterprises to manage and deploy containers, applications, and clusters through container-based virtualization.

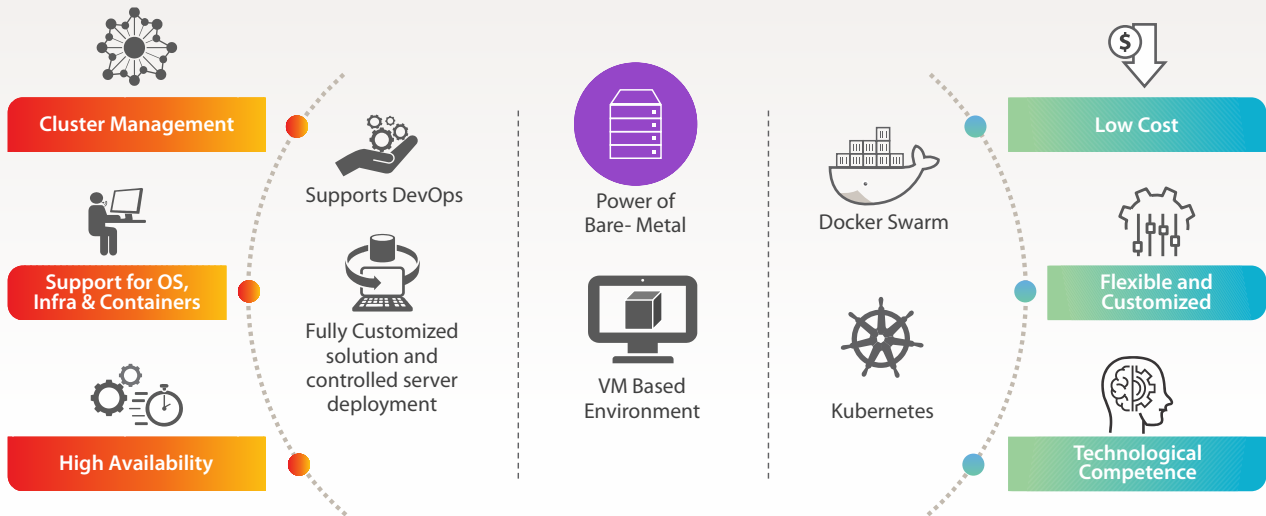
## Our Solution

TCS Container-as-a-Service (CaaS) offers the following salient features:

- **Container assessment:** Evaluates the client's existing/required container ecosystem configurations and provides a roadmap, with recommendations for the CaaS platform architecture, design and planning
- **Rapid Provisioning:** Reduces time-to-market and saves costs through rapid solution provisioning
- **Automation:** Automatically spawns and monitors multiple CaaS clusters via the TCS ECP CaaS UI, while enumerating key information about the status of the Kubernetes cluster, pods, replication, and other indications
- **DevOps Support:** Provides complete DevOps support, including the build and deployment of images
- **Container Lifecycle Management:** Provides support for monitoring, maintenance, license management and operations for container platform components
- **Container Platform Services Reporting:** Generates end-to-end integrated reports on the entire container platform and monitoring activities using best-in-class tools, such as Prometheus, Grafana, Solarwinds and cAdvisor
- **Integrated Operations:** Performs incident, change and problem operations in accordance with the client's existing ITSM processes; integrates with existing service management tools, patch management, and security management platforms

- Business aligned SLAs driven Architecture & Services
- Enables Agility, Flexibility and Scalability

- Application & Business Centric
- No compromise on Availability and Performance



**An overview of TCS Container-as-a-Service solution**

## Benefits

By utilizing the TCS CaaS, enterprises can gain the following benefits:



**Enhanced Flexibility:** Make the most of enterprise investments in existing, on-premise software licenses while migrating to the cloud with our 'Bring Your Own License' (BYOL) solution



**Accelerated Go-to-Market:** Speed-up application development by integrating containers with DevOps across development, test, and production lifecycles



**Greater Efficiency:** Save time by deploying, patching, or scaling applications more rapidly, including automated rollouts and roll-backs



**Increased Portability:** Deploy applications running in containers to multiple different operating systems and hardware platforms with ease, thus aiding migration to any environment, including hybrid deployments



**Reduced Costs:** Save overhead expenses by using containers to virtualize CPU, memory, storage, and network resources at the OS-level

## The TCS Advantage

By partnering with TCS, enterprises can leverage the following differentiators:

- **Reliability with Redundancy:** TCS container platform is designed keeping in mind a high-availability and auto-failover architecture, able to support our commitment to business level agreements
- **TCS Accelerators:** Clients can augment the capabilities of TCS CaaS by accessing our suite of prebuilt accelerators, available for automation and scaling on demand
- **Vendor Agnostic:** TCS CaaS is a flexible solution that can support a variety of applications – traditional, packaged, microservices, Windows, Linux, or mainframe – and can be deployed on Linux, Windows, or Mac OS, on virtual machines or bare metal, in on-premise data centers or the public cloud, integrating with existing software licenses and IT tools
- **Experience Certainty:** TCS provides business-aligned service level agreements, ensuring that our solutions unlock the expected tangible benefits in the near and long terms
- **Ease of Delivery and Governance:** TCS assumes end-to-end service delivery ownership of the entire stack, right from the infrastructure up to the platform. Further, multiple CaaS clusters can be managed through a unified dashboard post-delivery



## Awards & Recognition



### To know more

Visit the [Cloud Infrastructure](#) page on [tcs.com](#)

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### About Tata Consultancy Services Ltd (TCS)

Tata Consultancy Services is an IT services, consulting and business solutions organization that delivers real results to global business, ensuring a level of certainty no other firm can match. TCS offers a consulting-led, integrated portfolio of IT and IT-enabled infrastructure, engineering and assurance services. This is delivered through its unique Global Network Delivery Model™, recognized as the benchmark of excellence in software development. A part of the Tata Group, India's largest industrial conglomerate, TCS has a global footprint and is listed on the National Stock Exchange and Bombay Stock Exchange in India.

For more information, visit us at [www.tcs.com](#)

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