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A Container-as-a-Service (CaaS) solution for CloudVeneto

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Recently, CaaS, short for Container-as-a-Service, has been added to the long list where anything can be delivered as a cloud service (as-a-Service). This is a new paradigm that makes it easier to deploy Linux containers on cloud infrastructures. Unlike the more well-known KaaS (Kubernetes-as-a-Service), users no longer have to manage their Kubernetes cluster to run their containers, but a fully-managed orchestration platform is provided as-a-Service. Therefore CaaS is essentially a service for the deployment of containerised software packages which includes built-in functionality for auto scaling and orchestration management. The benefits are twofold: at the user and provider level. Users don't need any knowledge about managing Kubernetes, as they hand over the container to the service provider along with a description of the required resources (RAM, CPU core), through the orchestrator APIs. At the provider level, the CaaS avoids the proliferation of dedicated Kubernetes clusters which cause an inevitable consumption of cloud resources often unused for a long time. We wish to present an innovative CaaS solution implemented for CloudVeneto which aims to provide a secure multi-tenant fully-managed Kubernetes service with no administrative activity required to the users and with an efficient management of the cloud resources.

Primary author: ZANGRANDO, Lisa (Istituto Nazionale di Fisica Nucleare)

Co-authors: FANZAGO, Federica (Istituto Nazionale di Fisica Nucleare); MIGLIORINI, Matteo (Istituto Nazionale di Fisica Nucleare); TRALDI, Sergio (Istituto Nazionale di Fisica Nucleare)

Presenter: ZANGRANDO, Lisa (Istituto Nazionale di Fisica Nucleare)

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