SUSE CaaS Platform

Containers speed application delivery, facilitate application portability, and enable a new class of highly performant cloud native applications. But as container use grows, so too grows the need for production grade container orchestration at scale. Kubernetes and associated open source technologies can help, but enterprises need more. SUSE® CaaS Platform brings container management to the enterprise, answering the need for an integrated solution built on proven open source technology, and delivered as part of a software-defined infrastructure.

Product Overview
SUSE CaaS Platform is an enterprise class container management solution that enables IT and DevOps professionals to more easily deploy, manage, and scale container-based applications and services. As a result, enterprises can reduce application delivery cycle times and improve their business agility.

Key Benefits
- Achieve faster time to value with an enterprise-ready container management platform, built from industry leading technologies, and delivered as a complete package, with everything you need to quickly offer container services.
- Simplify management and control of your container platform with efficient installation, easy scaling, and update automation.
- Maximize return on your investment, with a flexible container services solution for today and tomorrow.

Key Features
SUSE CaaS Platform consists of three key components:
- Orchestration
- Operating System for Microservices and Containers
- Configuration

Orchestration
Orchestration is a key functionality needed to deploy containers for production. SUSE CaaS Platform uses open source Kubernetes to provide production grade container orchestration at scale.
Kubernetes is integrated with the optimized container and microservices. Operating System—SUSE MicroOS—to provide a unified system that is easy to setup and use. SUSE CaaS Platform takes away the complexity in setting up and deploying Kubernetes. An easy-to-use administrator dashboard helps you to deploy, manage and update cluster nodes. The SUSE CaaS Platform includes two types of nodes:

- Administrator node
- Cluster nodes

Some of the key features of Kubernetes include:

- Complete solution for container based workloads for deploying, managing and scaling containers. Self-healing—enable auto-starting, re-scheduling and replicating containers with ease.
- Integration with the Datacenter, supporting persistent storage and networking options.
- Follow upstream by using latest Kubernetes releases with ease.
- Avoid vendor-lock-in by using open source technologies of your choice that add value to your business.

OS for Microservices and Containers
At the heart of SUSE CaaS Platform is SUSE MicroOS, the microservices and container host OS. With a one-step configuration, SUSE MicroOS provides the necessary agility and performance so you can quickly setup and add components as you go along maturing the container application.

SUSE MicroOS is a single purpose Operating System, designed for microservices and containers and optimized for large deployments. The word “Micro” in MicroOS signifies microservices. The MicroOS inherits the SUSE Linux Enterprise knowledge and technology while redefining the operating system into a purpose-built, efficient and reliable distribution. As a result, your containerized apps can benefit from enterprise grade security and performance of the underlying OS.

In addition, you can run your microservices based applications efficiently by easily connecting a variety of persistent storage options—SUSE Enterprise Storage™, local disk or NFS to save logs and configuration details.

SUSE MicroOS solves some of the important pain points that an organization faces when using containers by providing:

- An easy to manage/upgrade OS
- The ability to quickly setup/manage a cluster of nodes
- An always up-to-date Operating System
- Scalability—up to 1000s of nodes

MicroOS uses modern file system technology—btrfs that provides you with advanced features such as snapshots and roll-back of releases. As a result, you can save time and be efficient in operating your IT infrastructure.

Configuration
There is a need to move away from the configuration of single hosts and instead configure a complete cluster. Handling the complete cluster the same way—with automatic configuration—allows you to concentrate on application development.

SUSE CaaS Platform uses open source Salt to automate the cluster at scale. Salt
provides a very scalable, fast and secure way of communicating with systems in real time. Using Salt you can achieve a complete and automatic installation and configuration of the SUSE CaaS Platform components. Additionally, you can automate configuration using cloudinit to pass configuration data to systems.

Putting all the pieces together, here’s what a sample stack with SUSE CaaS Platform would look like:

For detailed product specifications and system requirements, visit: [www.suse.com/products/product](www.suse.com/products/product)
Take advantage of the best in class container infrastructure and position yourself for building and deploying next generation applications using the SUSE CaaS Platform.