



Accelerate Containerized Application Delivery Using Kubernetes on the AWS Cloud

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Agenda

- Introduction and customer challenges
- Solution Architecture
- Technical Demo: SUSE Cloud Application Platform on Kubernetes
- How to deploy on the AWS Cloud

Kubernetes is Aimed at Operators, Not Developers

SUSE Cloud Application Platform uses the Cloud Foundry Application Runtime to add functionality for developers:

- One step command to containerize, deploy, and manage an application
- Automatically identifies and pulls in language libraries, frameworks, and other dependencies via build packs
- Open-source service brokers automatically create and bind services to applications
- Automates application lifecycle management by assigning appropriate resources, managing routing, load balancing, scaling, and more



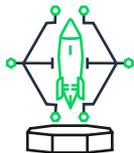
Cloud Foundry =
Developer Productivity



Kubernetes =
IT Flexibility

SUSE Cloud Application Platform

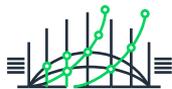
A modern application delivery platform that brings an advanced cloud native developer experience to Kubernetes. SUSE Cloud Application Platform increases business agility by helping enterprises to:



Boost developer productivity: with easy one step deployment of cloud native applications using the language and framework most appropriate for the task



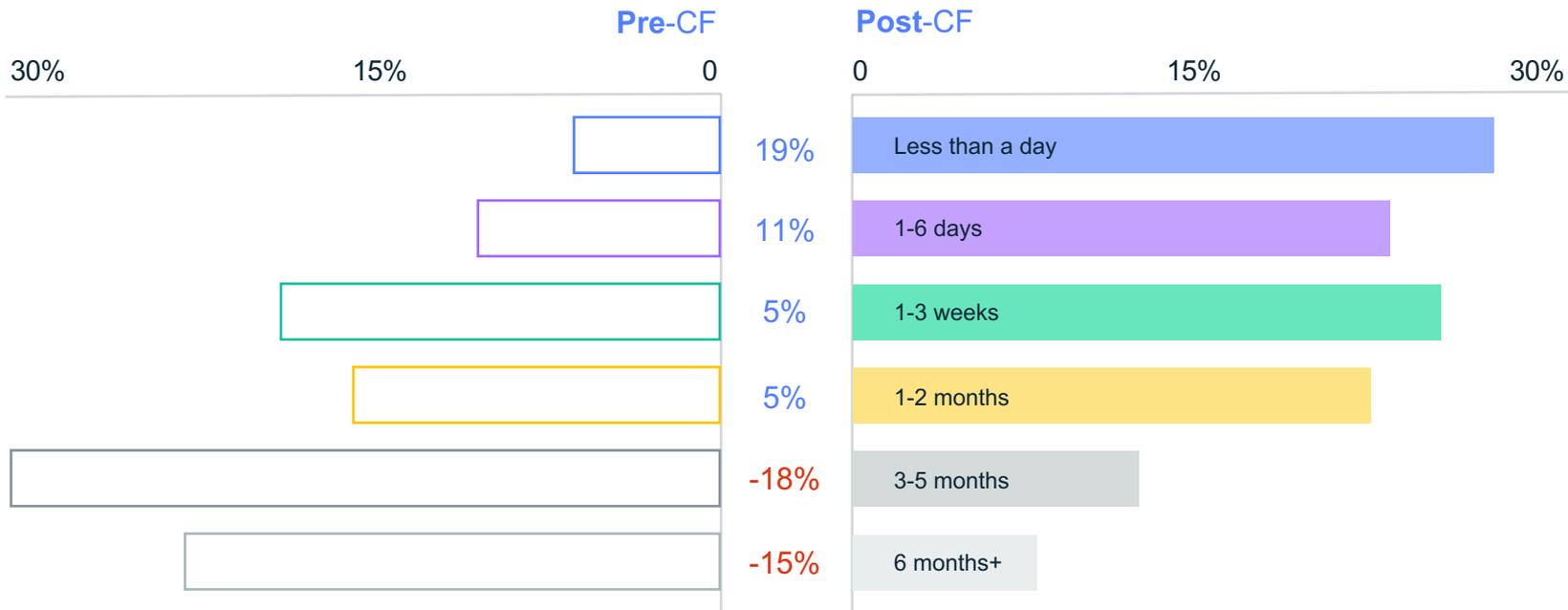
Reduce complexity and increase IT efficiency: with a lean platform for rapid application delivery at scale



Maximize ROI: with industry leading open source technologies that leverage your existing investments

Cloud Foundry Increases Developer Productivity

Pre- and Post-Cloud Foundry App Development Cycle



Increased Developer Productivity = Increased ROI

An ideal solution for organizations pursuing an engineering-led approach to application delivery transformation

Cloud Foundry users save

**10 Weeks,
\$100,000**

On average per application
development cycle



- Containerized
- Easy for Kubernetes users
- Small memory footprint
- 100% open source
- Enterprise grade Linux

Modular Kubernetes Solution Architecture

Flexible packaging to match your needs

Kubernetes User Experiences

DIY DevOps automation



SUSE Cloud Application Platform
Cloud native developer experience



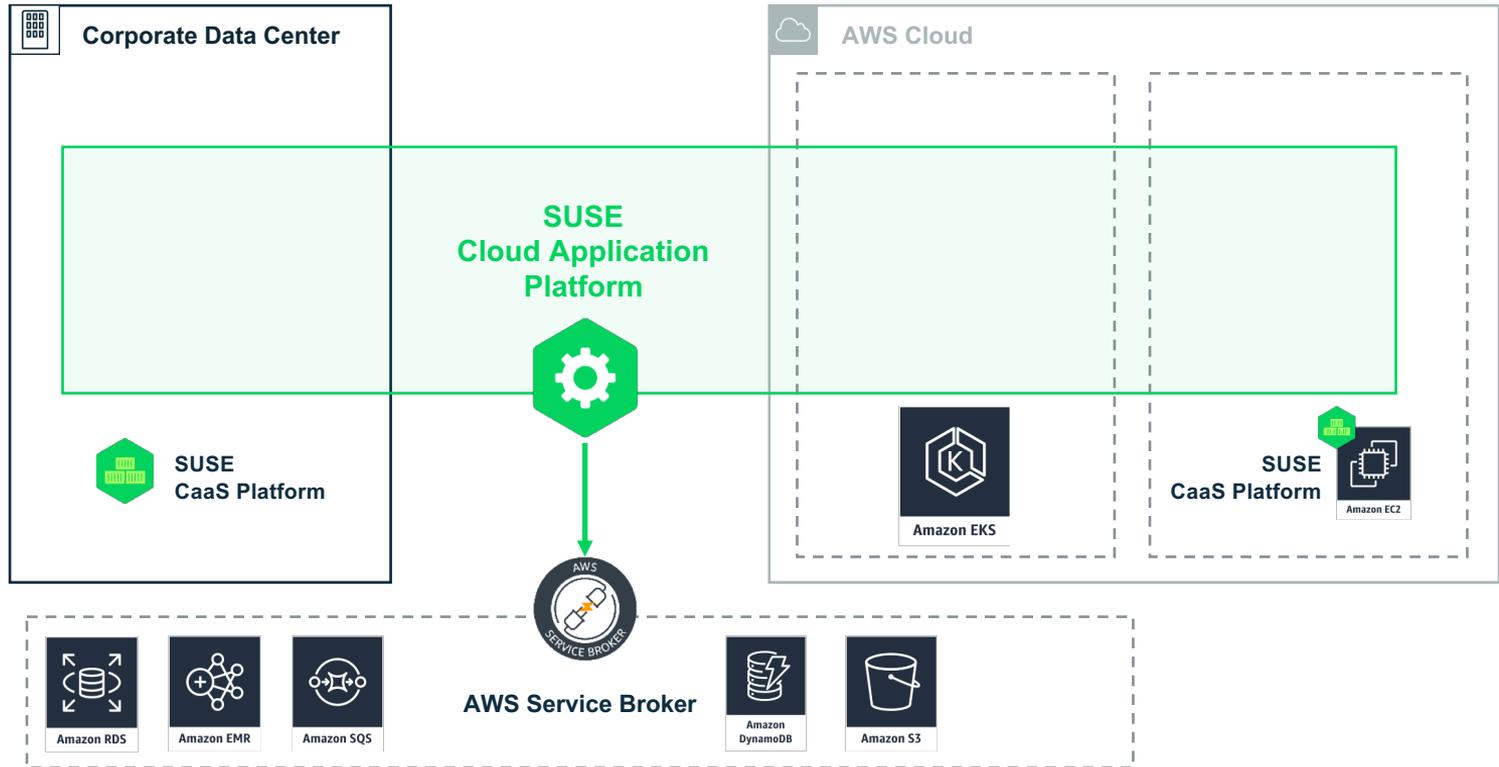
SUSE CaaS Platform
Kubernetes for the enterprise



Amazon EKS

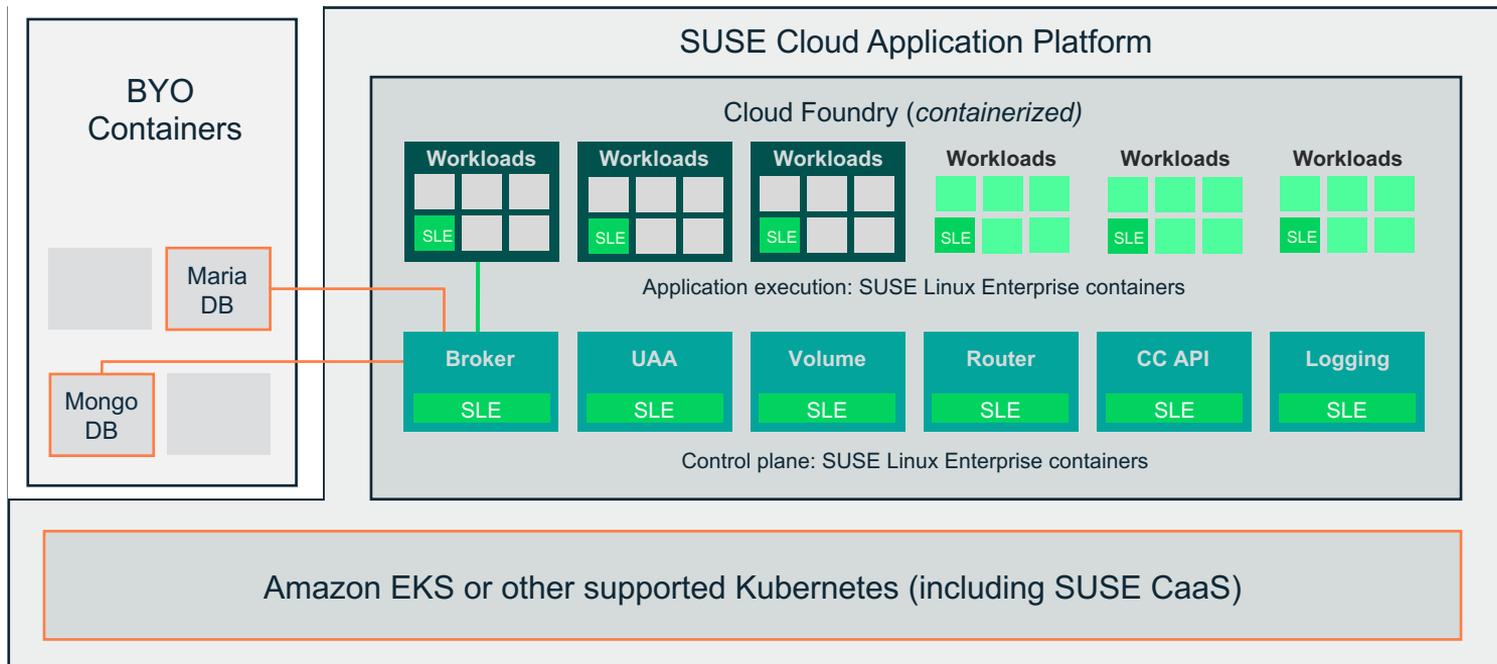
Kubernetes Operator Experiences

Hybrid and Extensible to AWS Services



SUSE Cloud Application Platform

Built on SUSE Linux Enterprise



Upstream Projects to Watch



Quarks packages Cloud Foundry Application Runtime (CFAR) as containers instead of virtual machines, allowing CFAR to be deployed to Kubernetes

Eirini enables pluggable scheduling for CFAR (allows operators to choose whether CFAR should use Diego or Kubernetes to orchestrate application container instances)

Stratos is a web UI for managing Cloud Foundry and other pluggable API endpoints. It allows users and administrators to manage applications running in Cloud Foundry and Kubernetes clusters and perform management tasks



SUSE Cloud Application Platform 1.5



Updates to all upstream Cloud Foundry components plus:

Deployment Automation

- **Terraform scripts** for AWS, Azure, and GCP - <https://github.com/SUSE/cap-terraform>

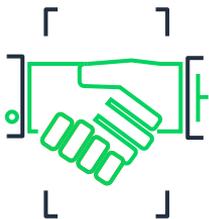
New in Stratos UI

- **Helm:** Browse charts from multiple Helm repositories and install third-party applications easily with a helpful UI.
- **App Autoscaler:** extracts set scaling parameters for applications based on memory usage, CPU consumption, throughput, or schedules.
- **Stratos Metrics:** new Prometheus exporter extracts metrics from the Cloud Foundry API which can be used for reporting or displayed in dashboard tools like Grafana.

SUSE Cloud Application Platform Demo

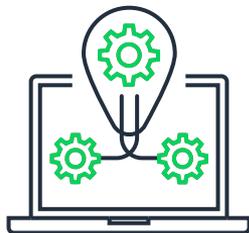
SUSE + AWS

Dedicated to Customer Success Powered by Enterprise Open Source Solutions



9 years of joint engineering

between the Amazon EC2 and SUSE Public Cloud Engineering teams



Trusted for mission-critical workloads on AWS with high availability solutions custom-built for the platform



Seamless Linux support from AWS

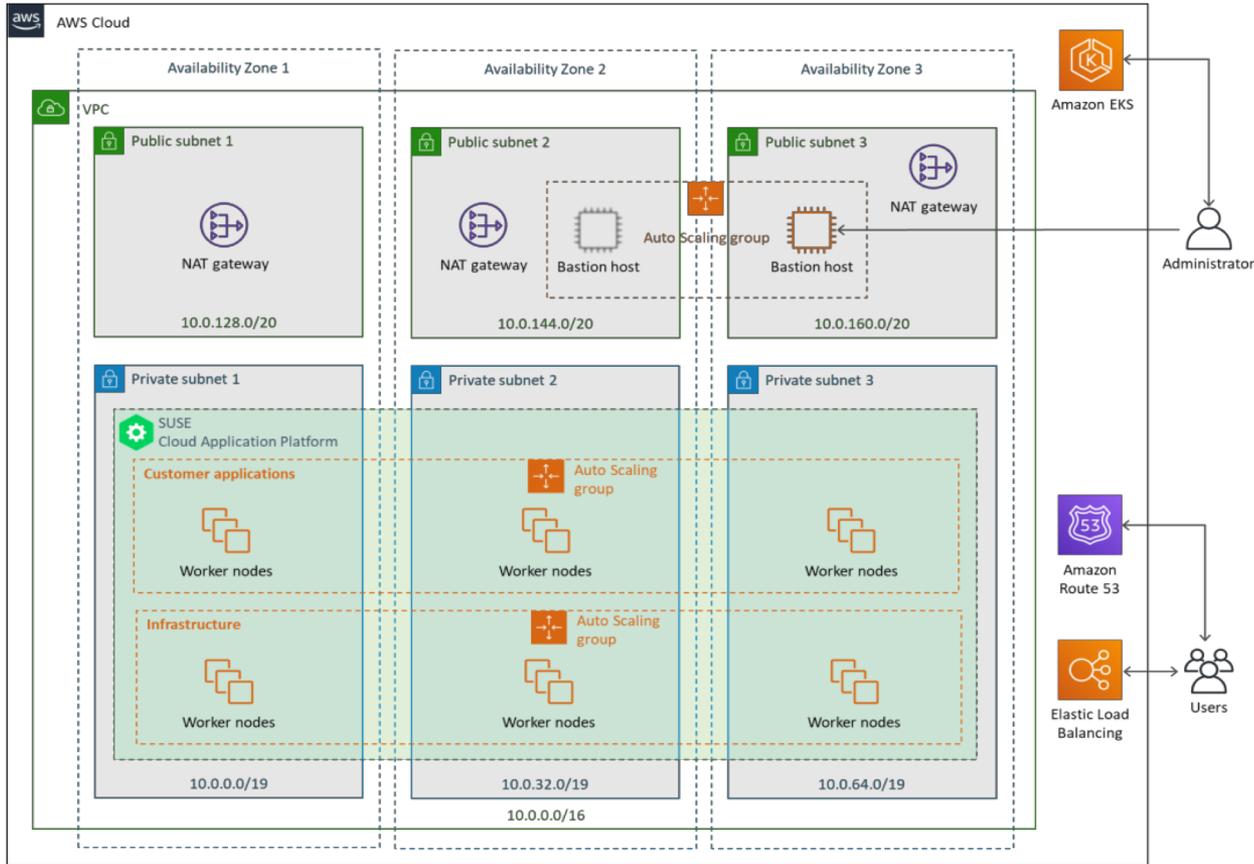
with AWS engineers specifically trained on SUSE solutions such as SUSE Linux Enterprise Server for SAP Applications

SUSE Cloud Application Platform on Amazon EKS

<https://aws.amazon.com/architecture/well-architected/>

Quick Start – Automated Deployment

SUSE Cloud Application Platform on Amazon EKS



<https://aws.amazon.com/quickstart/architecture/suse-cloud-application-platform/>

Quick Start Demo

Next Steps

AWS Quick Start guide for SUSE Cloud Application Platform including where to request AWS credits for qualified pilot projects - Visit our AWS Solution Space page:

<https://aws.amazon.com/solutionspace/containers/suse-cloud-application>

- AWS Quick Start guide is jointly engineered following the AWS Well-Architected Framework and deploys a highly available VPC architecture in under an hour on the AWS Cloud

SUSE Cloud Application Platform

documentation: https://www.suse.com/releasenotes/x86_64/SUSE-CAP/1/

Open Source Projects:

- SCF <https://github.com/SUSE/scf>
- QS <https://github.com/aws-quickstart/quickstart-suse-cloud-application-platform>
- Quarks <https://github.com/cloudfoundry-incubator/cf-operator>
- Eirini <https://github.com/cloudfoundry-incubator/eirini>
- EiriniX <https://github.com/SUSE/eiriniX/tree/master>

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