



# 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



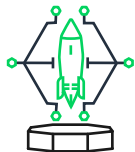
Cloud Foundry =  
**Developer Productivity**



Kubernetes =  
**IT Flexibility**

# SUSE Cloud Application Platform

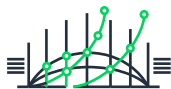
A modern application delivery platform that brings an advanced cloud native developer experience to Kubernetes. SUSE Cloud Application Platform increases business agility by helping enterprises to:



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



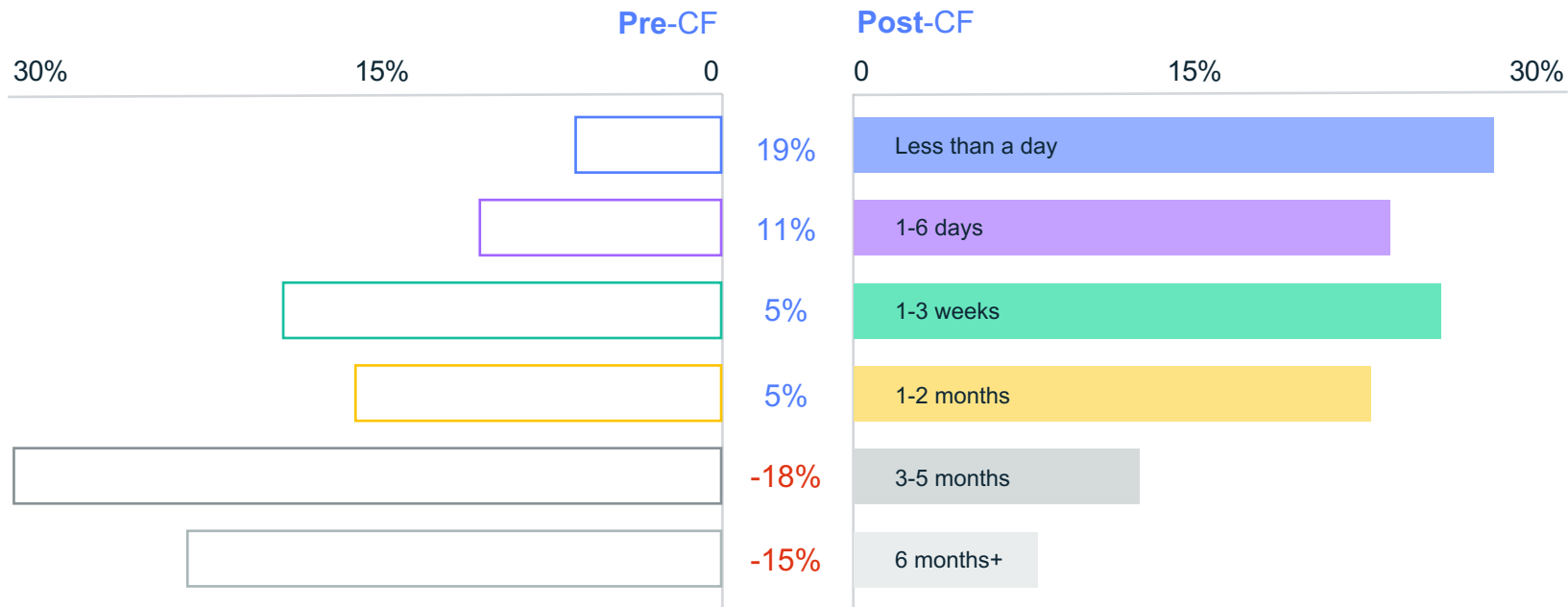
**Reduce complexity and increase IT efficiency:** with a lean platform for rapid application delivery at scale



**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



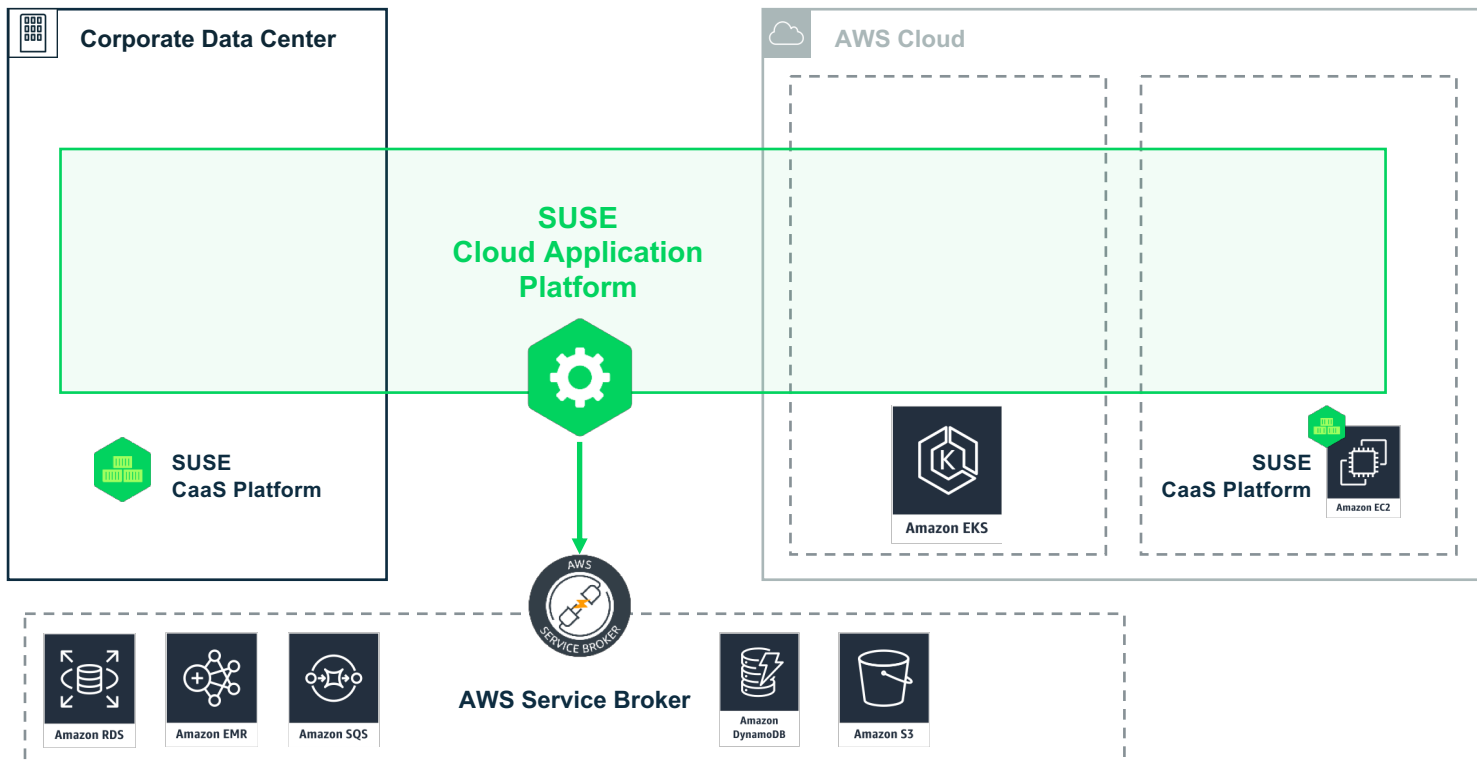
**SUSE CaaS Platform**  
Kubernetes for the enterprise



**Amazon EKS**

Kubernetes Operator Experiences

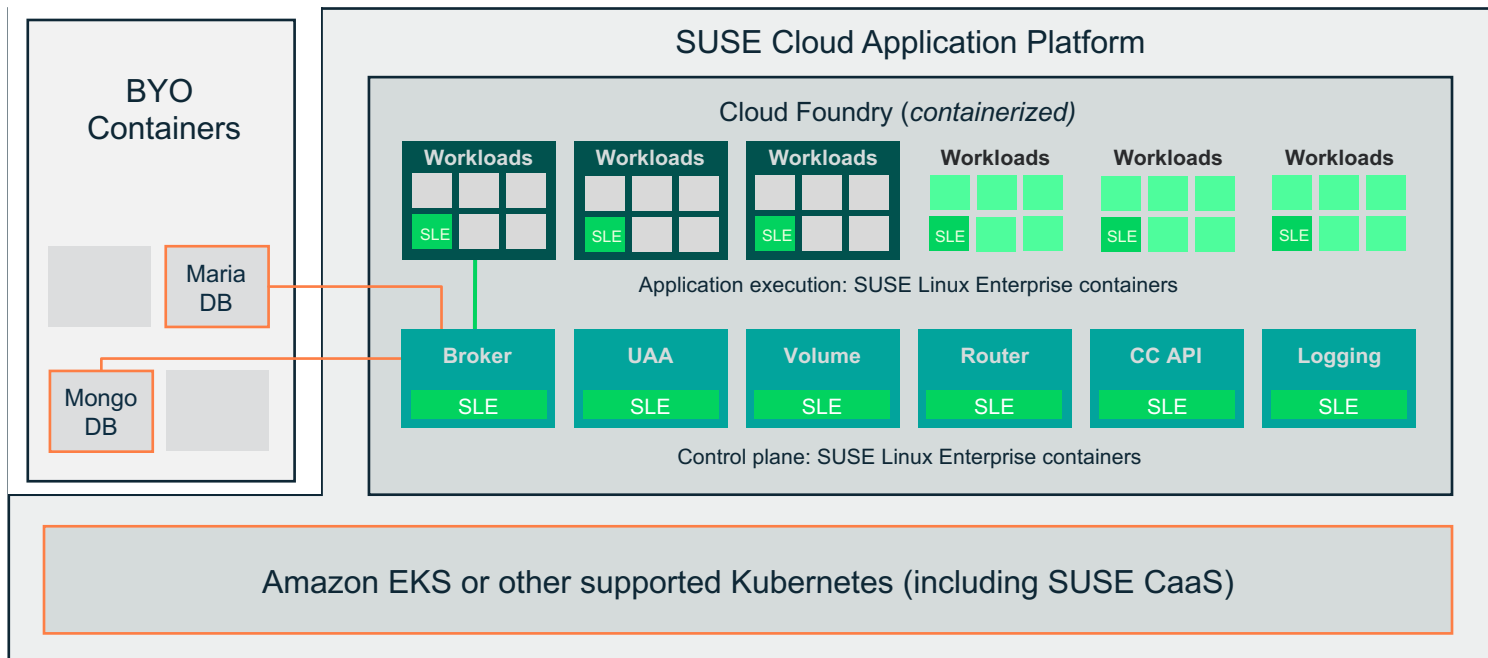
# Hybrid and Extensible to AWS Services





# 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>

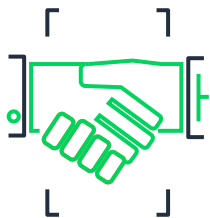
## New in Stratos UI

- **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

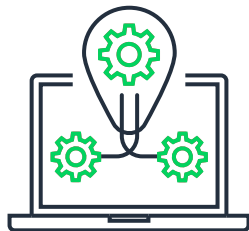
# SUSE + AWS

## 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

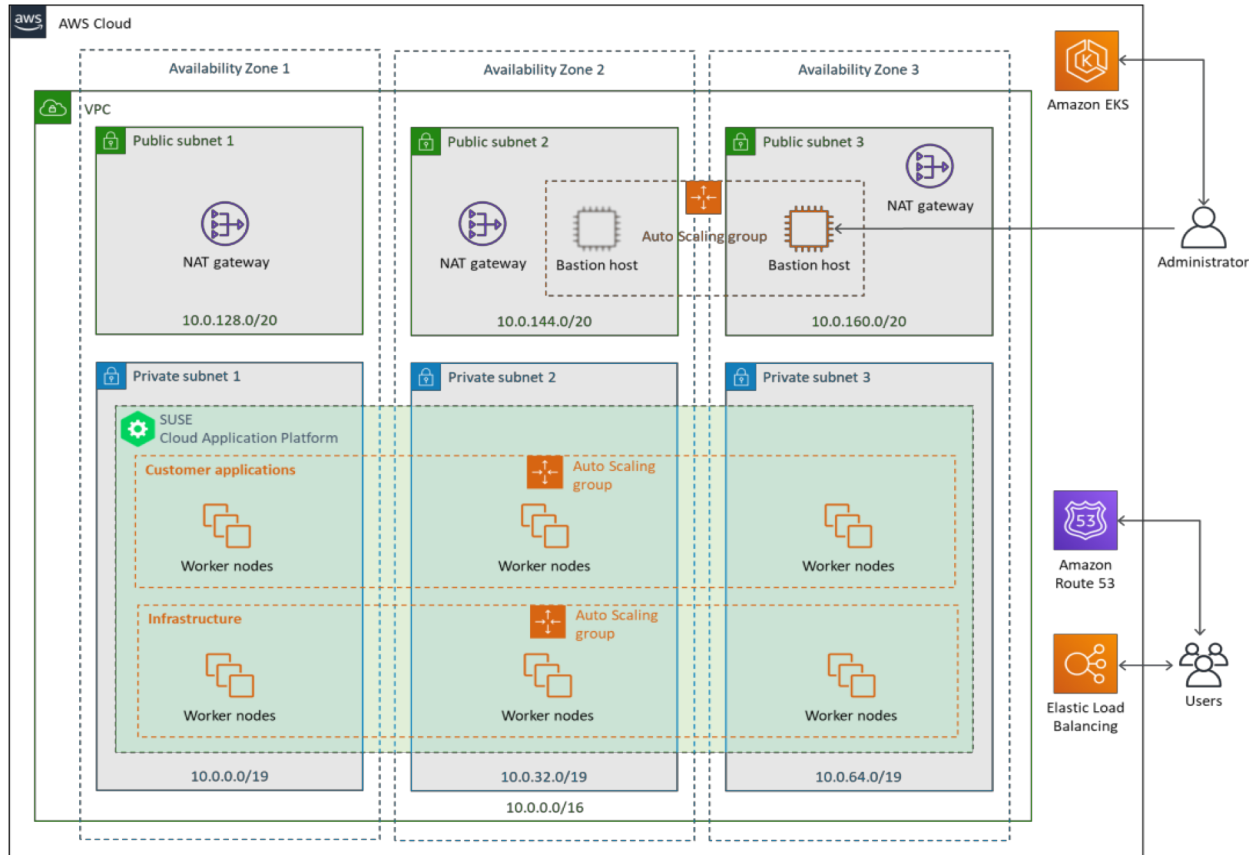
with AWS engineers specifically trained on  
SUSE solutions such as SUSE Linux  
Enterprise Server for SAP Applications

## 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/](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/eirini/tree/master>

**Email [aws@suse.com](mailto:aws@suse.com) for more info**