# CAEPE.

## Deploy applications on Kubernetes with confidence

CAEPE™ is a robust CD platform built for Kubernetes. CAEPE allows teams to deploy applications run on Kubernetes confidently across distributions, platforms, and environments; automating deployment, addressing enterprise needs, and providing universal access.

Continuous Deployment for Kubernetes is a challenge for teams. Skill gaps, existing tool limitations and enterprise needs have resulted in time and effort being focused on customization and manual tasks instead of value creation.

CAEPE focuses on standardization and automation so that teams regardless of skill levels can deploy their applications on Kubernetes with consistency and quality in line with their organizational demands.

CAEPE is an enterprise tool that abstracts organizations from managing the natural chaos and change associated with the dynamic Kubernetes tooling ecosystem.

**Progressive Delivery**

**Enterprise Support**

**Scalable Deployments**

**Multi-cloud, Air-gapped, Edge**

## Get started with CAEPE.

Explore demo videos, test drives, and additional resources at caepe.sh/start-here.

# Deployment

| | | |
|---|---|---|
| | Standard Deployment | Deploy applications and services through rolling deployment methodology |
| ✦ | A/B Deployment | Build an A/B deployment for applications and services |
| | Blue/Green Deployment | Build a Blue/Green deployment for applications and services |
| ✦ | Canary Deployment | Build a Canary deployment for applications and services |
| ✦ | Recreate/Highlander Deployment | Build a Recreate/Highlander deployment for applications and services |
| | Deployment Details | View deployment details including clusters deployed, deployment method, history, namespaces, time and size of deployment and differences between described deployment and actual deployment |
| ✦ | Deployment Queues | Manage deployment queue to ensure application and services deployed in order required |
| ✦ | Deployment Priority | Set deployment priority so that urgent deployments & updates get prioritized over other deployments |
| ✦ | Deployment Schedules | Set schedules for maintenance windows on clusters restricting when apps can be deployed, upgraded or removed |
| ✦ | Pre-flight Tests | Execute Pre-flight tests to ensure application has all it requires to go live and that the chosen cluster meets the requirements |
| ✦ | Dry Runs | Execute deployment Dry Runs to see what will be actioned on cluster and identify any potential conflicts or issues before actual deployment |
| ✦ | Latest Changes | Scan for latest changes in a deployment to see how it differs from previous deployment manifests |
| | Deployment Arguments | Pass arguments to deployment manifests to meet requirement of individual or group of clusters |
| ✦ | Estimate Time & Size | Estimate time and size of a deployment to understand how long a maintenance window may need to be set for |
| ✦ | Deployment Time & Size | View actual time and size for each deployment |
| | Post Deployment Action | Execute a script or webhook after a deployment has been executed or an update has occurred |

# Smoke Testing

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| ✦ | CAEPE Smoke Test | Quickly deploy a snapshot of a production app or latest version of the app to an upgraded cluster or new cluster type to ensure compatibility via smoke, performance, pen or chaos tests |
| ✦ | Dedicated Smoke Test Clusters | Identify specific clusters as Smoke Test clusters so that they can only be used for restoring snapshots on to |
| ✦ | Live Cluster Snapshot | Take a live snapshot of an application on cluster including Persistent Volume (PV) data to be restored on any other cluster |
| ✦ | Snapshot Restore | Restore snapshots of applications and data to same or new cluster |
| | Quick App Deploy | One shot application deploy for use on a smoke test cluster |
| ✦ | Test Automation | Execute smoke, performance, pen or chaos tests after a quick app deploy or restore of a snapshot of a live application and its data |
| ✦ | Post Test Application Management | Remove app or cluster post test execution to avoid excess infra costs or potential data leakage |

✦ *Unique CAEPE features*

# Edge/Airgapped

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|---|---|---|
| | Auto Cluster Build | Automatically build clusters for Edge/Airgapped as needed using SSH, Cloud Formation, Azure Cloud Resource, GCP Cloud Deployment, Ansible and Terraform |
| | Cluster Tear Down | Tear down of clusters built via auto cluster build to avoid excess running costs |
| ✦ | Cluster Environment Type | Identify Edge or Airgapped clusters so that they can be managed with a method that suits their environment |
| ✦ | Deployment Queues | Manage deployment queue to ensure applications and services deployed in order required or when connectivity is available |
| ✦ | Deployment Priority | Set deployment priority so that urgent deployments & updates get prioritized over other deployments when edge or airgapped maintenance windows become available |
| ✦ | Private Repo/Registry Management | Deploy a private repo or registry as part of the CAEPE self-hosted package for use in airgapped or edge situations |
| ✦ | Estimate Time & Size | Estimate time and size of a deployment to understand how long a maintenance or connection window may need to be set for |
| ✦ | Offline Subscription Management | Flexibility to add and remove clusters to subscription with out being connected to CAEPE portal |

# Clusters

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| | Cluster Support | Managed K8s clusters, virtualized clusters, bare metal clusters, cloud-based clusters, on-prem clusters, edge clusters and airgapped clusters |
| | Cluster Connection | Connect to running clusters via native K8s methods supporting both push and pull methods to meet security needs |
| | Auto Cluster Build | Automatically build clusters as needed for deployments using SSH, Cloud Formation, Azure Cloud Resource, GCP Cloud Deployment, Ansible and Terraform |
| ✦ | Cluster Tear Down | Tear down of clusters built via auto cluster build to avoid excess running costs |
| | Cluster Status | Health and connection status of all clusters connected to CAEPE |
| | Cluster Details | Cluster type, applications deployed and namespaces |
| ✦ | Cluster Groups | Group clusters together for single deployments to multiple clusters |
| ✦ | Cluster Classification | Classify clusters by environment and infrastructure type |
| ✦ | Cluster Schedules | Set schedules for maintenance windows on clusters - restricting when apps can be deployed, upgraded or removed |

✦ *Unique CAEPE features*

# Applications

| | | |
|---|---|---|
| | Application Support | Support for all container-based applications on Kubernetes |
| | Application Defaults | Set defaults for applications that can be used by deployments or customized for new deployments |
| ✦ | Application Groups | Group applications together for single deployment of multiple applications |
| | Application Details | View application details including versioning, deployment type & path, namespace and clusters application is deployed to |

# Subscription, Management & Support

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|---|---|---|
| | SAAS | CAEPE App deployed, managed and maintained as SAAS app |
| ✦ | Self Hosted | CAEPE App deployed, managed and maintained on customer's own infrastructure |
| ✦ | Management Portal | CAEPE users, subscriptions, app packages & SAAS managed through central portal |
| | Direct Subscription | CAEPE subscription paid direct via credit card |
| ✦ | Azure Subscription | CAEPE subscription paid via user's Azure subscription |
| ✦ | Subscription | Licensed by number of clusters connected, full functionality with unlimited users |
| | Enterprise Access Control | Enterprise user management offering a high degree of control over user access, resources and artefacts |
| | Authorization & Authentication | OAuth for authentication & authorization of users for app, CLI and API along with integration to directory services |
| | Audit Management | Who, What, Where and When audit trail with system logging and diagnostics |
| ✦ | Health Log & Monitoring | Pre-packaged Grafana & Prometheus for health monitoring of self-hosted CAEPE deployments |
| | CLI | CAEPE's own CLI for automation and scripting |
| | API First | CAEPE is API First giving potential for integration at every level |
| ✦ | Enterprise Support | Enterprise level support for all users |
| | Credential Management | Store, manage and secure credentials used for connection to repos, registries, clusters, SSH or cloud providers via inbuilt vaults |
| | Dashboard | View all details of clusters, applications and deployments via a single dashboard |
| ✦ | Schedules | Set schedules for restricting deployments to maintenance windows or schedule deployments for specific times |
| ✦ | Generate CLI | Generate required CLI for scripting directly from CAEPE UI |
| ✦ | Approvals | Approval workflows to manage how clusters, applications, deployments and other resources are created, updated or removed by users |

✦ *Unique CAEPE features*