

CONFLUENT PLATFORM

Flexible DevOps automation

[Confluent Platform](#) provides flexible infrastructure-as-code tooling for DevOps and Platform teams to confidently deploy and manage Apache Kafka® clusters on bare metal, virtual machines, or Kubernetes.



Accelerate deployment to production



Simplify day-to-day operations



Deploy on any platform with confidence

Why flexible DevOps automation?

Configuring, deploying and maintaining Kafka clusters through their lifecycle, whether on bare metal, virtual machines, or Kubernetes, can be a manual, complex process. As a result, deploying to any environment, from development to production, can take a significant investment in time and personnel resources, and can be risky if the deployment is delayed due to manual configuration errors. For enterprises, delays in reaching production translate to lost return on investment in Kafka and continued reliance on legacy, batch-oriented solutions.

Confluent Platform offers DevOps tooling to automate the deployment and key lifecycle operations of Kafka clusters on any infrastructure platform.

Features



Confluent Operator

Operator simplifies running Confluent Platform as a cloud-native system on Kubernetes, whether on-premises or in the cloud. It delivers an enterprise-ready implementation of the Kubernetes Operator API to automate deployment and key lifecycle operations.



Ansible Playbooks

Ansible Playbooks simplifies running Confluent Platform in non-containerized environments on bare metal or virtual machines. It delivers tooling for both automated deployment of the platform and rolling upgrades as new versions of the software become available.



“When we perform an update, we can use Ansible Playbooks from Confluent to test the upgrade. Additionally, we know that Confluent support will respond within the hour if we run into anything unexpected.”

Oguz Kayral | Engineering Manager, Unity Technologies

Solution

Accelerate deployment to production

Automated cluster configuration

Operator and Ansible Playbooks allow you to create fully configured Kafka clusters available in a matter of minutes. Operator automates the deployment of Confluent Platform on Kubernetes, while Ansible playbooks do the same for non-containerized environments on virtual machines or physical servers.

Programmatically deploy Apache Kafka with minimal effort:

- Specify security and authentication configuration
- Enable dynamic provisioning of storage resources
- Simplify networking between Confluent Platform components
- Automate the configuration of networking access to clients outside the cluster

Complete event streaming platform

Leverage either tool to deploy several components of Confluent Platform at once rather than in a bespoke manner. With each tool, you can deploy components of the platform that you use beyond Kafka brokers, including Connect Workers, Control Center, Schema Validation, ksqldb, and more.

Automate the deployment of Apache Kafka on Kubernetes or any non-containerized environments.



Simplify day-to-day operations

Automated rolling upgrades

Perform automated rolling upgrades after a Confluent Platform version, configuration, or resource update without impacting Kafka availability, significantly reducing the risk of missing SLAs on cluster uptime.

Streamlined recovery

Automatically recover after a failure in your Kafka brokers or underlying infrastructure. With Confluent Operator, your brokers will be restored with the same ID, configuration, and persistent storage volumes, providing you with both a simplified recovery process and peace of mind.

Deploy on any platform with confidence

Proven, battle-tested architecture

Implement standardized, validated architecture designed by the world's foremost Kafka experts, allowing you to operate at scale with confidence. In particular, Operator operationalizes years of experience running Kafka on Kubernetes at massive scale as part of our managed service, Confluent Cloud.

Broad ecosystem of Kubernetes distributions

Operator provides you with the same operational experience for market-leading Kubernetes distributions:

- Red Hat OpenShift
- Pivotal Container Service (PKS)
- Google Kubernetes Engine (GKE)
- Amazon Elastic Container Service for Kubernetes (EKS)
- Azure Kubernetes Service (AKS)
- Plus any Kubernetes distribution or managed service meeting the Cloud Native Computing Foundation's (CNCF) conformance standards.

Confluent Platform. Enterprise event streaming platform built by the original creators of Apache Kafka. For more information, please visit confluent.io. To contact us, visit confluent.io/contact. For detailed product specifications, please refer to our [documentation](#).