Amazon Web Services Cloud Deployment

Deploying Kafka to the cloud is becoming increasingly popular as enterprises default to cloud for their platforms or look to a hybrid on-premises & cloud approach.

This engagement will provide a Confluent Kafka expert to work alongside your technical teams to assess an upcoming Kafka & Amazon Web Services (AWS) cloud deployment. They will review your goals, discuss design tradeoffs and share known best practices drawn from existing AWS deployments.

The goal is to provide you an architectural plan for a production AWS deployment, encompassing topics such as; the correct EC2 instances and storage, networking, security, orchestration and multi-data center - where required.

Who Should Be Involved?
Operations staff responsible for an upcoming Kafka cluster deployment in the cloud.

Prerequisites
» Account access AWS with privileges to provision resources
» Infrastructure automation tools if appropriate (e.g. scripts/Chef/Puppet/Ansible, etc)
» Infrastructure orchestration tools if appropriate (e.g. Mesos Marathon)
» Container (e.g. Docker) image definition for client applications if appropriate (note: Confluent will provide docker images for the Confluent Platform if needed)
» Upcoming or active Kafka-based projects

Project Activities
» Pre-engagement survey and kickoff call
  • Align on engagement expectations and goals
  • Confirm logistics
» Use case discovery
  • Discuss anticipated volume and characteristics of the data in your cluster, and how these will evolve over time
  • Type and quantity of producers and consumers of this data
» Cloud deployment requirement gathering and recommendations
  • Instance type recommendations based on performance (e.g. network, IO, etc.), budget, and storage requirements (e.g. instance storage vs Elastic Block Store)
  • Network topologies (e.g. AWS VPC, availability zones, connectivity to corporate network, etc)
  • Security and access control
  • Backup and disaster recovery options
  • Cloud monitoring
  • Use of infrastructure automation tools (e.g. provisioning, service orchestration
  • ZooKeeper implementation
» Discussion of considerations & recommendations, including the following:
  • Designing for scalability and high-availability
  • Patterns to guarantee data delivery and processing
  • Integration with surrounding systems
  • Multi-region design and configuration
» Post-engagement report delivery
  • Survey and follow-up call

(continued)
Knowledge Transfer
At the end of the project, the Confluent expert will provide a written summary of their recommendations, which may include:

1. An architecture design for your cloud deployment
2. Scalability and high availability
3. Testing

Project Duration
Two days of direct, continuous interaction between a Confluent expert and the appropriate members of your technical team.

Project Location
On-site at customer's premises, a room with a whiteboard and a screen, or projector. Alternatively, this engagement can be delivered remotely. In this case, the customer would need to provide remote access to the cloud environment and automation tools where appropriate.

More Information
To discuss the Kafka AWS Cloud Deployment consulting service, or any of the other services and training courses offered by Confluent, please contact us at contact@confluent.io.