



Kafka UI

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AGENDA

- ✓ Kafka
- ✓ Kafka UI
- ✓ Demo and Resources



Kafka in the Industry

APACHE KAFKA

*More than **80% of all Fortune 100 companies** trust, and use Kafka.*

Apache Kafka is an open-source distributed event streaming platform used by thousands of companies for high-performance data pipelines, streaming analytics, data integration, and mission-critical applications.



10 OUT OF 10

MANUFACTURING



7 OUT OF 10

BANKS



10 OUT OF 10

INSURANCE



8 OUT OF 10

TELECOM



Kafka Use Cases

Transportation



Driver-Rider Notifications

Food Delivery Notifications

Retail



Sale Notifications

**RealTime Purchase
recommendations**

**Tracking Online Order
Deliveries**

Banking



Fraud Transactions

**New Feature/Product
notifications**



Kafka UI

- As such kafka does not come with any UI ,
commonly used open source UI applications are Kafdrop , AKHQ.
 - <https://github.com/obsidiandynamics/kafdrop>
 - <https://akhq.io/>
- Limitations with Kafdrop,
 - Performance has degraded when kafka cluster had over 1000 topics
 - No functionality to push messages into topics , only we can view the messages



AKHQ (KafkaHQ previously)

AKHQ has the below advantages ,

- Very active open-source project in github
- Funded by JetBrains which owns popular IDEs used for development
IntelliJ IDEA , Pycharm
- It's a light-weight application developed in Java
- Performance is much better compared to Kafdrop , which is currently supporting over 3000 topics in Kafka Cluster for APS application.
- Supports connecting to a Kafka cluster with and without SSL encryption.



AKHQ (KafkaHQ previously)

- We can push messages from this tool into Kafka topics, which was missing in kafdrop, without this the QA team was connecting to Kafka from command Prompt to push messages which was time consuming.
- It supports search on topic names, consumer groups, partitions, based on timestamp, messages key and value, offsets.
- It has support for AVRO and Protobuf schemas.



AKHQ Installation

- It can be run as a standalone application , as a docker container and as a POD inside a Kubernetes cluster .
- it has dependency of java version 11.
- Standalone installation involves two files ,
 - download the AKHQ application which is a jar file from <https://github.com/tchiotludo/akhq/releases/download/0.20.0/akhq.jar>
 - configure the Kafka connection (bootstrap server address) in the configuration yml file <https://github.com/tchiotludo/akhq/blob/dev/application-dev.yml> and run the below command,

```
java -Dmicronaut.config.files=/path/to/application.yml -jar akhq.jar
```
 - Access the application at , <http://localhost:8080>



AKHQ In Kubernetes Cluster

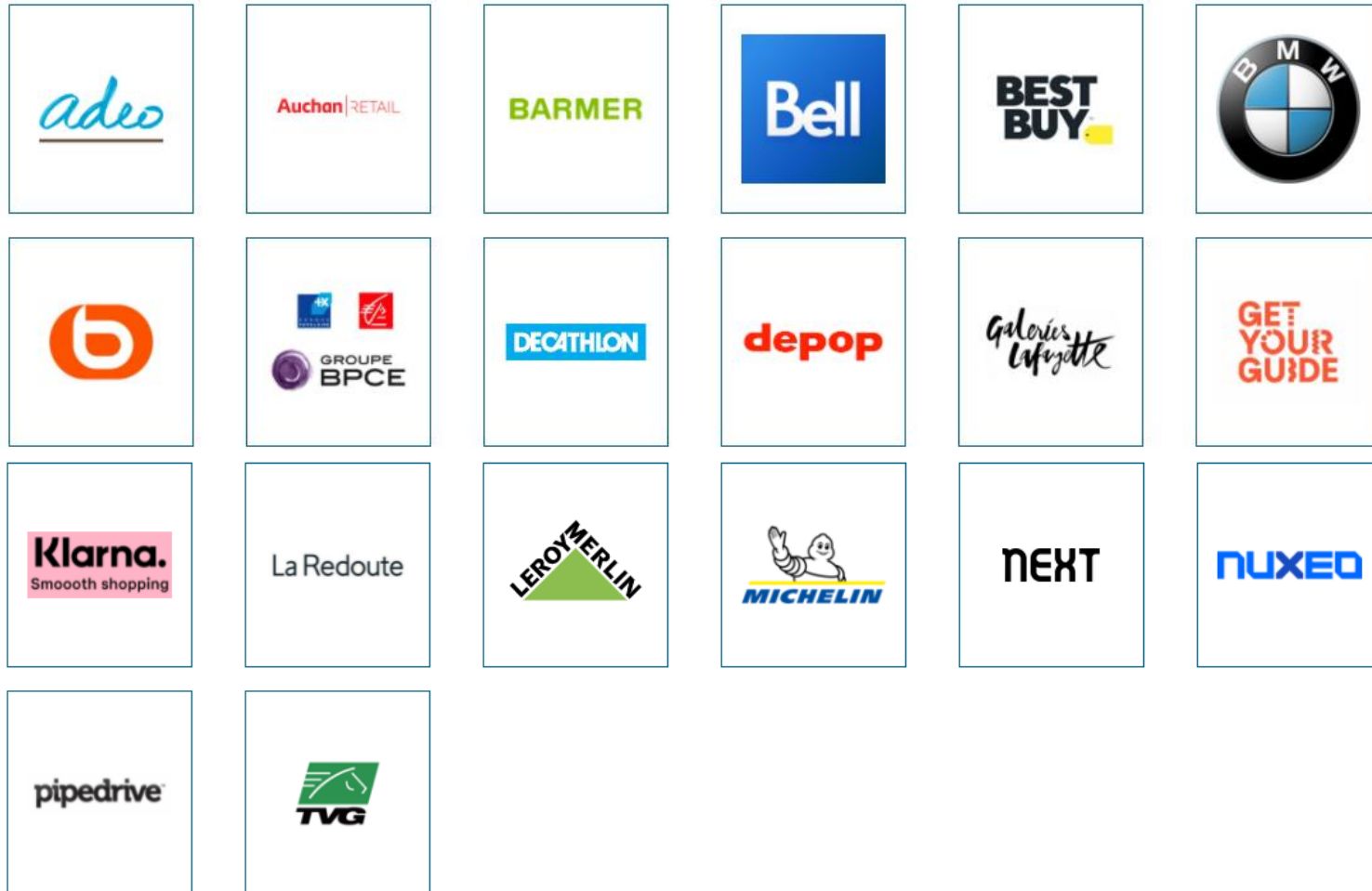
- Supports installation using helm charts,
- Detailed Steps here,

<https://akhq.io/docs/installation.html#using-helm-repository>



AKHQ User Base

Who's using AKHQ



Demo and Resources

- Demo of AKHQ application in Kubernetes Cluster for APS.
- <https://kafka.apache.org/uses>
- <https://github.com/tchiotludo/akhq/>
- <https://github.com/tchiotludo/akhq/blob/dev/LICENSE>
- <https://akhq.io/docs/#installation>
- <https://github.com/tchiotludo/akhq/releases/download/0.20.0/akhq.jar>
- <https://github.com/tchiotludo/akhq/blob/dev/application-dev.yml>
- <https://akhq.io/docs/installation.html#using-helm-repository>
- <https://akhq.io/docs/dev.html#setup-local-dev-environment-on-windows>



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Questions?

THANK YOU!

