CONFLUENT

Running Kafka in 2021:

A Cloud-Native Service

Table of Contents

There's no questioning the value of Apache Kafka® and real-time data to your business. Unfortunately, the toll of self-managing is too costly when you add up scaling, managing, supporting, securing, building connectors… and everything else that comes with it. In 2021, if you want to deliver high-value projects that drive competitive advantage or business differentiation quickly, your best people can't be stuck in the day-to-day management of Kafka, and your budget is better spent on your core business. By now you know, the answer is cloud.

Here's the point:

You've likely chosen to utilize cloud services like EC2, S3, and BigQuery. It's time to do that for Kafka, with Confluent Cloud.

We want to help you move faster, reduce TCO, and get your best people out of Kafka ops. The only way to do this is to stop managing Kafka yourself or using other tools that may host the clusters for you, yet leave you on the hook for the lion's share of the ops burden and dealing with things like:

- Complex cluster sizing, capacity planning, and expansions
- Kafka upgrades and software patches
- Consumer lag
- Partitions flapping in and out of the ISR
- Managing ZooKeeper
- Server restarts
- The list goes on…

Here's how Confluent Cloud makes it happen:

Reduce your Kafka TCO by 60% with a cloud-native service

Moving to a fully managed Kafka service removes the burden a self-managed deployment puts on your team and your business, eliminating operational effort and lowering costs so your engineering teams can quickly deliver your critical business projects.

However, not all managed services are created equal. Many Kafka services call themselves "fully managed," but the definition of *fully managed* often means different things. On one end of the spectrum you have a truly cloud-native experience, where product features and automation eliminate operational efforts, enabling teams to focus on their applications. This is the case with Confluent Cloud. On the other end lie offerings full of standard Kafka capabilities not available or supported by the provider, which leads to teams having to build custom code without any support. And in the middle are services that try to sell themselves as fully managed, when in fact they are actually just manual operations with some assisting tools added.

Not all managed Kafka services are created equal

Fully Managed (cloud native) Automated product capabilities with no overhead	Partially or Self-Managed (cloud-hosted) Manual operations with tools and/or support	Open Source (custom/unsupported) Development and maintenance without support

Operational burden →

Minutes   Months

Ideally, every step in your event streaming journey is cloud native in nature. The profile of a cloud-native service can be broken down into four characteristics.

Elastic scalability

You can provision serverless, auto-balancing Kafka clusters on demand that scale elastically between 0-100 MBps or get you to GBps+ scale with a few clicks. Instant elasticity like this means you can easily scale up to meet unexpected demand and just as quickly scale back down to manage cost. You pay for what you need, when you need it, and no more.

Global access

Studies have shown that 80 percent of companies use more than one cloud service provider. If you're one of the lucky ones with a single provider, that's great. If not, a Kafka deployment that only works in a single environment undercuts your ability to leverage data in motion across your business and customer experiences. Confluent lets you link Kafka clusters that sync in real time, so your events are available anywhere—across multiple public or private clouds.

Infinite storage

Store unlimited amounts of data on your Kafka clusters, without any upfront capacity planning or provisioning. Kafka becomes a system of record so your teams can do more with your real-time events. Plus, you don't need to pull resources to firefight downtime due to disk space-related failures.

Complete event streaming platform

Confluent does more than just manage Kafka for you. Your team gets a complete platform built around it so they can quickly execute their projects. We provide out-of-the-box connectors for the most popular data sources/sinks in the Kafka ecosystem, Schema Registry to maintain data integrity, an event streaming database with ksqlDB, and more—all fully managed in the same cloud UI.

Confluent Cloud versus other managed offerings

Confluent provides a complete, cloud-native, world-class Apache Kafka service that enables event streaming on a massive scale and brings together all your data in context. You can get started quickly, cheaply, and easily—while operating securely and reliably—and provide a cost-effective event streaming solution to the entire organization.

When evaluating services, it's important to understand the benefits and cost implications of a cloud-native solution across the entire Kafka journey, including planning, operating, and scaling. To give some context to this decision-making process, here's a comparison of Confluent Cloud and other managed Kafka services that are not cloud native.

Table Key

■ **Cloud native**   ■ **Self-managed**   ■ **Custom**

Planning

Getting started with most managed Kafka offerings may seem easy, but there are a few immediate hurdles to watch for.

	Confluent Cloud	Other Managed Services
Cluster sizing and capacity planning	**Simple throughput-based sizing.** Start with what's needed today and effortlessly scale as needed	**Broker-based sizing.** Typically overprovisioned to reduce need for complex expansions later
Cluster provisioning and configuration	**Self-serve, on-demand.** For Kafka, Schema Registry, connectors, and ksqlDB	**Self-serve, on-demand.** Kafka only

Operating

While other managed services can leave you with an operational burden that rapidly increases once you deploy, Confluent Cloud automates operations to enable growth with the ease that should be expected of a cloud service.

	Confluent Cloud	Other Managed Services
Infrastructure-level issues	**Proactively monitored.** Proactive remediation of issues so users can focus on topics, not brokers	**DIY.** User tasked with monitoring, alerting, and remediation of infrastructure-level issues
Topic monitoring	**Free, pre-aggregated metrics.** Integrate Metric API with your monitoring service of choice	**Topic-level metrics cost extra.** Higher monitoring costs with more topics and manual aggregations
Kafka upgrades	**Always latest stable version.** Non-disruptive rolling upgrades	**Limited version support.** User manually initiates upgrades and is responsible for cluster availability
Software patches	**Proactive fixes.** Strategic releases and bug fixes available in advance of Apache release	**Not available.** Failures due to Kafka software often not covered by uptime SLAs

Scaling

Scalability becomes critical as Kafka adoption grows within your organization. Confluent Cloud offers a true cloud-native experience all the way from planning to scaling—a journey in which you have the freedom of choice to deploy on any platform and receive support from leading Kafka experts who are ready to use their committer-driven expertise to fix even the most complicated Kafka issues.

	Confluent Cloud	Other Managed Services
Cluster expansion	**Elastic.** Effortless scaling with automatic data balancing on all cluster types	**DIY.** Complexity of data rebalancing left up to user as more brokers are added
Build, maintain, and manage **connectors**	**Fully managed.** Easy integration to AWS and third-party cloud services	**Build your own.** Time-consuming custom development on non-repeatable integrations
Build, maintain, and manage **non-Java clients**	**Battle tested and supported.** Confluent-supported clients for C, Java, .NET, Go, Python, and more	**DIY.** No easy integration or support for development on non-Java apps

So what does this mean for you? Confluent Cloud's fully managed service can lower the cost of Kafka ownership by 60%.

How AO.com Offloads Kafka Ops and Accelerates with Confluent Cloud

"Confluent gives us the tools we need to drive innovation. Before Confluent Cloud, when we had broker outages that required rebuilds, it could take up to three days of developers' time to resolve. Now, Confluent takes care of everything for us, so our developers can focus on building new features and applications."

Jon Vines
Software Development Team Lead at AO.com

AO.com, one of the UK's largest online retailers, takes customer engagement to the next level by delivering a unified, hyper-personalized experience based on a deep understanding of each individual customer. Confluent Cloud and event streaming enable AO.com to treat each customer visit as a unique moment, combining real-time digital signals with historical information to give each customer what they want, when they want it.

Get your people out of Kafka ops and back to their projects

Self-managing all or even parts of Kafka forces DevOps and engineering teams to shift their focus away from critical business projects and toward keeping Kafka running. In particular, you can simplify and even eliminate Kafka operations in a few major ways.

Industry-leading reliability

Confluent gives you highly available Kafka clusters backed by a 99.95% SLA that are always on the latest stable version of Kafka and get upgraded and patched in the background like any other cloud-native service. Your team won't get dragged back into cluster management and can stay focused on their projects that drive value for your organization.

Total cluster visibility

Even if you're not managing Kafka clusters, your team still needs to know how they're performing and how your data flows. Confluent shows exactly what's going on with real-time cluster-, topic-, and consumer-level health metrics in the UI or with our Metrics API. Plus, you or your team can use Confluent's audit logs to monitor security events or help with compliance audits.

Secure by default

No matter how you implement, there's no cutting corners when it comes to data safety and compliance. Confluent secures your Kafka environment with encryption at rest and in transit, role-based access controls, Kafka ACLs, and SAML/SSO for authentication. More granular control with private networking and BYOK for your Kafka environments is available as well. Finally, we design with compliance and privacy in mind with SOC 1/2/3 certifications, ISO 27001 certification, HIPAA/GDPR/CCPA readiness, and more.

Learn more about data security on Confluent Cloud.

Stay agile and work how you want

Your people don't have time for systems that can't support the clients for their preferred programming language or aren't available in the cloud where their project is located. With Confluent they can stay agile and work in the language of their choice with our non-Java clients like C/C++, Go, .NET, Python, and our REST Proxy. Plus, Confluent is available across all major cloud marketplaces, so your team can use your existing cloud provider credentials to leverage Kafka and quickly scale it up.

optimove

How Optimove Reduced Administrative Overhead by 17%

"We used to host and manage Kafka ourselves, but with Confluent Cloud we're saving the equivalent of one person each month in administrative effort. In addition to increasing our focus on our core tasks, Confluent Cloud enabled us to set up multitenant clusters and better manage separate schema for our customers. And we'll soon be taking advantage of the ability to easily scale up and scale down as needed."

Yuval Shefler
VP of Partnerships at Optimove

When building out a science-first Relationship Marketing Hub, Optimove needed to expand its real-time customer data platform capabilities in order to ingest customer data from multiple sources and transform it autonomously into actionable insights at scale. Using real-time event streaming with Confluent Cloud, Optimove built a platform that maintains always-up-to-date views of customer data and supports machine learning algorithms to maximize customer campaign effectiveness.

With the partnership with Confluent, stress on external IT systems was reduced by 90% and administrative overhead was cut by 17%. Optimove saves the equivalent of one employee a month in administrative effort.

nuuly

How Nuuly Delivers High-pressure Launches with Reduced Overhead

"We truly think of Confluent Cloud and Kafka as the central nervous system of our business, spanning everything from the customer-facing applications to distribution center operations from a technology perspective."

Chirag Dadia
Director of Engineering at Nuuly

Urban Outfitters came to Confluent to launch a new clothing rental subscription service, Nuuly, from the ground up, in a matter of months. This required an entirely new IT infrastructure, since the legacy IT systems in place at the retail company were designed and built for traditional retail sales. The new business model would require a real-time event-driven architecture—and in a hurry, as the launch was only six months out.

With the help of Confluent Customer Success expertise, Nuuly's team of developers used Confluent Cloud and Apache Kafka to build a reliable, real-time, event-driven architecture that serves as the core operating platform for the entire service. Nuuly achieved a flawless launch on a tight schedule, with administrative overhead for Kafka management reduced by ten employees and ongoing stable operations, even as Nuuly quickly scaled up subscribers.
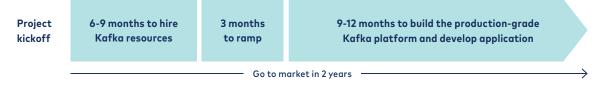
Build and launch faster

The autonomy provided by no-ops Kafka and cloud-native scalability has allowed developers on Confluent Cloud to finish what should be two-year projects in as little as six months. Sometimes much less.
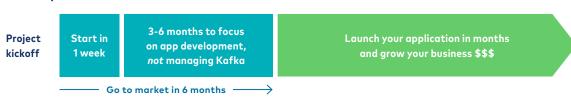
Proof points: Time-to-market with Confluent's cloud-native Kafka service

Here's what we're talking about. With Confluent Cloud, instead of hiring a full development team, buying and provisioning infrastructure, doing capacity planning, testing, etc. you can get Kafka clusters up and running with a few clicks and then fully focus your energy on building applications and delivering value. Confluent Cloud pays for itself and then some.

Traditional Kafka Development

Project kickoff	6-9 months to hire Kafka resources	3 months to ramp	9-12 months to build the production-grade Kafka platform and develop application

Go to market in 2 years →

Development with Confluent Cloud

Project kickoff	Start in 1 week	3-6 months to focus on app development, *not* managing Kafka	Launch your application in months and grow your business $$$

Go to market in 6 months →

Here are a few examples of rapid development Confluent Cloud made possible:

- Next-gen cybersecurity company built their massive scale (GBps+) threat intelligence app in six months versus two years—a 75% reduction in time to market

- Leading financial institution launched their real-time market data service in three months versus one year—a 75% reduction

- European web analytics company launched their machine learning application in one week—a 50% reduction

---

scrapinghub

How Scrapinghub Uses Confluent Cloud for Next-Gen Web Scraping

"A key advantage of Confluent Cloud is time to market. We didn't have to set up a Kafka cluster ourselves or wait for our infrastructure team to do it for us. With Confluent Cloud we quickly had a state-of-the-art Kafka cluster up and running perfectly smoothly. And if we run into any issues, we have experts at Confluent to help us look into them and resolve them. That puts us in a great position as a team and as a company."

Ian Duffy
DevOps Engineer at Scrapinghub

Scrapinghub's mission was to create a next-generation web scraping service called AutoExtract rather quickly, and it needed to be capable of scaling to customer demand without downtime. Using Confluent Cloud, the company implemented a reliable, scalable event streaming backbone that links web crawlers with AI-enabled data extraction components.

With this new product launch, the market leader was able to cement its position by halving deployment time and experiencing 100% uptime post-launch. Latencies were minimized without cloud vendor lock-in, and Scrapinghub confidently serves more than a million developers a day.

Embrace cloud for Kafka

Every minute spent managing Kafka or waiting for Kafka to be set up is time taken away from building impactful customer experiences and products. Developers and organizations using Confluent have finished projects that would have taken two years in less than six months. Sometimes they even get wrapped up in a matter of weeks. What are you waiting for?

Get a free TCO assessment to see how using Confluent's fully managed Kafka service saves your people time and your business money.

Have teams ready to kick the tires on a no-ops Kafka service? Have them watch a Confluent Cloud demo or sign up for a free trial.