



# ***Modernize Your Data Estate with Confluent's Data Streaming Platform***

Confluent is 10X better than Apache Kafka so you can cost-effectively build real-time applications on Microsoft Azure





Modern organizations need a modern database strategy. Instead of piecing together data from multiple on-premises databases or clouds, companies need a continuous flow of data to make relevant, informed decisions at a fast pace. Data streaming with Apache Kafka® delivers this—but managing Kafka in-house requires a significant investment of IT resources, expertise, and headcount.

That's where Confluent comes in. Confluent's cloud-native, complete, everywhere service goes above and beyond Kafka. It offers the only true fully managed, cloud-native data streaming platform for Kafka, with 10X faster scaling, infinitely more storage, and built-in resilience.<sup>1</sup> Additionally, its more than 120 pre-built connectors<sup>2</sup> allow teams to stream data fast from virtually any source, dramatically accelerating the development of applications with real-time data. Plus, it gives organizations the

freedom to deploy Kafka anywhere, through any cloud vendor, and with best-of-breed solutions.

Teams get even better results when they combine Confluent with Microsoft Azure. With Azure, companies get a modern place to manage Kafka in the cloud for more agile, cost-efficient, and scalable ways to build, deploy, and extend applications. Read on to learn how Confluent and Azure are helping companies modernize their data infrastructure and strategies to speed up development while saving time and money.

## Better together: Confluent and Microsoft Azure

Over 70% of the Fortune 500 use Apache Kafka today<sup>3</sup>—and Confluent has re-architected Kafka for the cloud to ease database modernization with Azure Cosmos DB. Confluent helps companies link on-premises and multi-cloud systems to accelerate data migrations, move from batch to real-time streaming, and reduce their total cost of ownership (TCO).

Confluent is now available on the [Microsoft Azure Marketplace](#). Consolidate billing, accelerate procurement, and fully integrate into your existing Microsoft investments.

<sup>1</sup> 10X Better Than Apache Kafka®

<sup>2</sup> Confluent Connector Portfolio

<sup>3</sup> Confluent's Data Streaming Platform Can Save Over \$2.5M vs. Self-Managing Apache Kafka®

# Why companies must complete the transition to cloud

Gartner predicts that by 2023, 75% of all databases will be on a cloud platform.<sup>4</sup> Already, the market for cloud-enabled data solutions has grown from \$38.68 billion in 2017 to \$80 billion in 2021. In fact, revenue for managed cloud databases (dbPaaS) now represents over 49% of all revenue from database management systems (DBMS).<sup>5</sup>

There's a reason for that. Legacy on-premises databases are rigid and costly to operate at scale. They may also be slow and difficult to secure and maintain. Plus, integrating them with other data sources may require multiple custom connectors and batch processes.

Challenges may increase when companies migrate to hybrid and multi-cloud configurations. Integrating across clouds can be a difficult task; hybrid cloud infrastructure must be maintained and may require management of numerous vendor relationships. That's because legacy databases were designed for static, on-premises installations and not purpose-built for the cloud.

The bottom-line impact of less-than-modern strategies is felt across the organization. Teams that need data can't access it. When they use static or passive data in lieu of real-time data, they also can't make decisions based on the latest information. As a result, the customer experience suffers.

## The state of data in motion

A full 97% of organizations worldwide are tapping into real-time data streams. For the inaugural State of Data in Motion report, Confluent surveyed 1,950 IT and engineering leaders across six countries.<sup>6</sup> Findings show that:

- Data in motion can underpin businesses that excel, now and into the future. More than 80% of organizations report that real-time data streams are critical to building responsive business processes and rich customer experiences.
- Harnessing the full power of real-time data streams is difficult for many organizations. In fact, 60% of tech leaders say that difficulties integrating multiple data sources are the biggest hurdle to accessing more real-time data.
- Real-time data streaming becomes even more important when organizations are running multiple clouds. Only 39% of respondents say they are "completely prepared" to operate in a hybrid cloud environment, with some of their data in the cloud and some still on-premises.

## Legacy databases vs. cloud databases

### Legacy database

- Hard to integrate with other systems due to its rigid architecture
- Expensive in both upfront and ongoing maintenance costs
- Slower to scale to meet evolving demands

### Cloud database

- Lower TCO, achieved by decoupling storage from compute and leveraging consumption-based pricing
- Increased overall flexibility and business agility
- Worry-free operations with built-in auto-scaling and maintenance cycles

<sup>4</sup> "Gartner Says the Future of the Database Market Is the Cloud," Gartner, July 1, 2019

<sup>5</sup> Merv Adrian, "DBMS Market Transformation 2021: The Big Picture," Gartner blog, April 16, 2022

<sup>6</sup> [The Results Are in from the First Ever Data in Motion Report](#)

# Accelerate data estate modernization with Confluent

Event streaming with Apache Kafka is a crucial component of database modernization, but scaling Kafka to meet rapidly changing business needs can be a challenge. While it's somewhat user-friendly and easy enough for a reasonably skilled team to manage, Kafka alone doesn't fully meet an enterprise's needs for stream processing, real-time data pipeline management, and data integration at scale.

Confluent provides a truly cloud-native experience, completing Kafka with a holistic set of enterprise-grade features to unlock developer productivity, operate efficiently at scale, and meet IT organizations' architectural requirements. Underpinning the platform is our 99.99% uptime SLA and committer-driven expertise, providing support and services with over one million hours of technical experience with Kafka.

Moreover, Confluent Cloud is the only cloud-native service proven to be significantly better than self-managed open-source Kafka or semi-managed services that install Kafka on a handful of machines. Because it lets teams analyze multiple data streams in the same application, Confluent dramatically reduces the TCO of integrating and managing data.

## Take your database to new heights

Use Confluent to modernize your database environment in three steps.

### Step 1: Connect data sources

An important first step to modernizing your data environment is to connect databases to Confluent so that new events can be streamed. Kafka Connect is an API native to Kafka that lets Confluent source events from other data systems, such as relational databases, into Kafka topics through source connectors. Events are then taken from topics through sink connectors and sent to other data systems, such as Azure Cosmos DB.

Again, Confluent offers 120+ pre-built connectors, so IT teams can quickly add data sources to Confluent-powered streams with no custom development.

### Step 2: Optimize data

For some applications, it may be necessary to analyze data or run calculations on the fly. Through ksqlDB, Confluent adds an abstraction layer to Kafka's Streams API, allowing teams to create data-in-motion apps with SQL. In addition to being easy to use, ksqlDB is highly available, fault-tolerant, and able to support aggregations, joins, window-based queries, order handling, and even exactly-once semantics.

### Step 3: Migrate and modernize

For the final phase, sink connectors move events from Confluent into the modern, cloud-based data system of any team's choice, such as Cosmos DB. Confluent supports single-message transformation as well, which allows teams to customize their data as it egresses a cluster. Confluent can be described as a "central nervous system" for all systems and applications because it allows for the free and secure flow of all parts of systems, applications, and businesses to power real-time apps and analytics.

## ***Make the business case for Confluent and Azure***

Confluent has re-architected Apache Kafka for the cloud to help companies accelerate application development and lower their TCO. IT and business units can make a powerful business case for Confluent on Azure that includes:



### ***Lower TCO***

On average, teams operate more than 50% more efficiently by reducing infrastructure costs, ongoing maintenance demands and overhead, and downtime risk. In fact, Forrester identified TCO savings of nearly \$2.58 million for businesses that used Confluent instead of managing open-source Kafka in-house.<sup>7</sup>



### ***Speed application development***

Because Confluent abstracts the knowledge needed to administer a Kafka infrastructure, developers can understand it faster, thus building their applications more quickly. They can focus on solving problems and building applications, accelerating application development times as much as 75%.<sup>8</sup>



### ***Slash time to value***

It's quick and easy to set up Confluent from the Azure Marketplace. Many organizations can start using Confluent within minutes—and be billed directly through Azure.



### ***Increase ROI***

By launching apps faster and reducing the administrative burden on teams, Forrester found that Confluent users achieve an overall 257% return on investment (ROI) with a payback period of less than six months.<sup>9</sup>

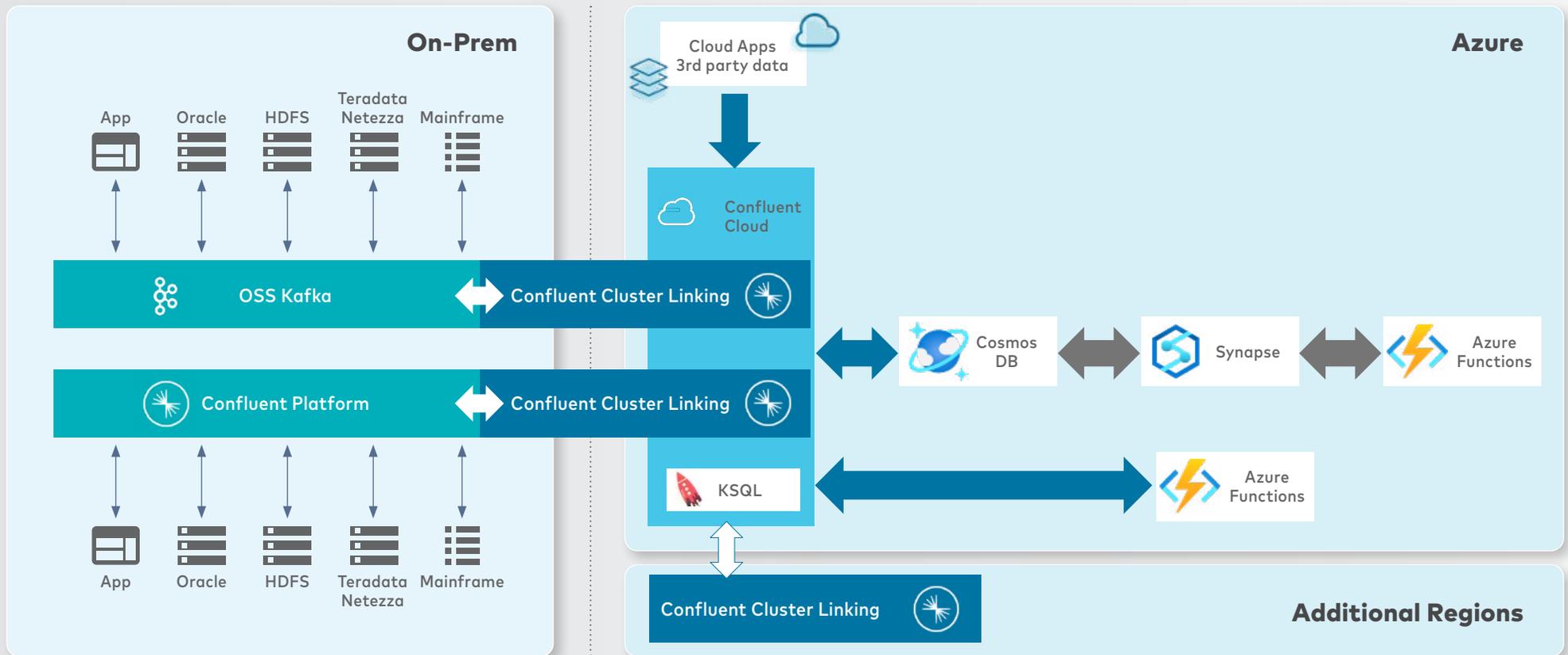
<sup>7</sup> [Confluent's Data Streaming Platform Can Save Over \\$2.5M vs. Self-Managing Apache Kafka®](#)

<sup>8</sup> [Measuring the Cost Effectiveness of Confluent Cloud](#)

<sup>9</sup> [Forrester TEI Study: Save - \\$2.58M Using Confluent Cloud vs Apache Kafka](#)

# Understanding the architecture: Azure

## How does this look in practice?



## Common use cases

Companies can build new real-time use cases with a modern data platform built with Confluent and Microsoft Azure.

### Financial services

According to PwC, 81% of banking CEOs are worried about the speed of technological change.<sup>10</sup> And that change is only accelerating as banking customers demand personalized services and expect real-time insight into their accounts from any device. While batch processing is a barrier to meeting expectations and mitigating risks, a centralized data architecture powered by data in motion helps financial services companies manage risk across the organization, combat financial crime, and create real-time applications that intelligently respond to events as they happen. Banks can meet personalization demands with:

- Events—financial transactions that create data conducted on a website or an app
- Event streaming—the continuous processing of real-time data directly as it is produced in associated transactions
- Event-driven architecture—the ability to centralize data and distribute it to every application within the organization

### Retail

The “e-commerce effect” has fundamentally altered customers’ buying habits. Reimagining customer experiences and driving operational efficiencies through innovation and digital transformation are key to thriving in this reality, but legacy data architecture holds companies back. To meet today’s need for speed and flexibility, Confluent enables teams to unlock the value of data in motion by easily processing real-time streams and integrating data silos to build real-time applications and deliver premium customer experiences. Modern retailers trust Confluent to:

- Optimize omni-channel inventory
- Analyze customers’ online journeys
- Build customer loyalty schemes
- Set dynamic pricing
- Integrate legacy messaging systems with Kafka
- Maximize the value of their data
- Elevate the shopping experience

### Industrials and manufacturing

With the onset of Industry 4.0 and an increasingly competitive environment, innovative manufacturers are embracing the power of data, industrial IoT, and next-gen technologies, such as 5G, robotics, blockchain, and more. However, the combination of the distributed nature of manufacturing and legacy data infrastructures escalates IT complexity, impedes digitization, and slows the business. With Confluent, manufacturers use data in motion based on Kafka to easily access data as real-time streams, unlock legacy data, and integrate data silos. By modernizing their data infrastructure and streamlining operations, teams can:

- Optimize fleet management
- Flag faulty IoT devices
- Track order shipments in real time
- Modernize and offload mainframe data
- Identify firewall deny events
- Transform their workforces
- Unlock innovation and deliver new services

<sup>10</sup> “Financial Services Technology 2020 and Beyond: Embracing disruption,” PwC, 2020

# Data modernization is better with Confluent and Microsoft Azure

Why run Confluent on Azure? The joint solution is award-winning. As a Microsoft 2022 Partner of the Year Award winner, Confluent is recognized for its deep commitment to the consistent, high-quality, and predictable delivery and deployment of Kafka on Azure. The award, which honors companies that demonstrate excellence in innovation, is a testament to the partnership's integration with Azure security, management, billing, and data analytics services, delivering a more agile and trustworthy approach to procuring and deploying market-leading data streaming.

*"Confluent is great at helping companies make the most of real-time data, and through the Azure Marketplace, they're doing a great job at partnering with Microsoft to reach customers globally, and deliver their solutions with speed and convenience."*

*- Jake Swenson, VP and GM Commercial Marketplace at Microsoft*

## Why Confluent and Microsoft Azure are better together

Confluent comes with a fully managed connector for Microsoft Azure Cosmos DB. It can connect on-premises and multi-cloud data to Azure Cosmos DB, process that data in a stream before it reaches Azure Cosmos DB, and connect Azure Cosmos DB data to any application. Azure Cosmos DB is a fully managed, serverless NoSQL database for high-performance applications of any size or scale. Get guaranteed single-digit millisecond performance and 99.999% availability, [backed by SLAs](#), [automatic and instant scalability](#), enterprise-grade security, and open-source APIs for NoSQL databases such as MongoDB and Cassandra.

Confluent also has an architecture that allows faster event streaming. When Confluent is deployed on Azure, companies can lower their cost footprint and management overhead with integration into Azure's security, management, billing, and data analytics services—delivering an agile, trustworthy way to procure and deploy better data streaming. Companies receive a 30-day trial without a credit card, SSO capabilities through third parties such as GitHub, and a unified marketplace experience for Microsoft customers.

By running Confluent on Azure, companies can modernize their databases, accelerate development, and release new features in less time. This partnership also:

- Helps companies meet time to market goals thanks to refreshable data
- Gives value beyond IT—for instance, marketing departments get access to valuable data so they can take data and personalize promotions, retailers can make real-time decisions, and financial organizations can process higher trade volumes
- Provides an agile, elastic, cost-efficient way to shutter physical data center operations
- Gets application teams the data they need more quickly
- Delivers new features and capabilities to customers at scale, improving the bottom line

# Data modernization in action

The most successful businesses today are those that can stay ahead of customer needs and manage change as efficiently as possible. With Confluent and Azure, these companies use innovative data streaming to do just that.

## Bosch

- **Challenge:** Enable a small team of solution architects to power a large-scale digital transformation with new applications that process and respond to real-time events.
- **Solution:** The company used Confluent Cloud Enterprise and Apache Kafka® to implement a common IoT architecture that supports real-time event-based streaming and persistent event storage.
- **Results:** The small team established a low-maintenance, scalable event-streaming platform, maintained its cutting-edge position, and set the foundation for digital transformation.

## Nationwide Building Society

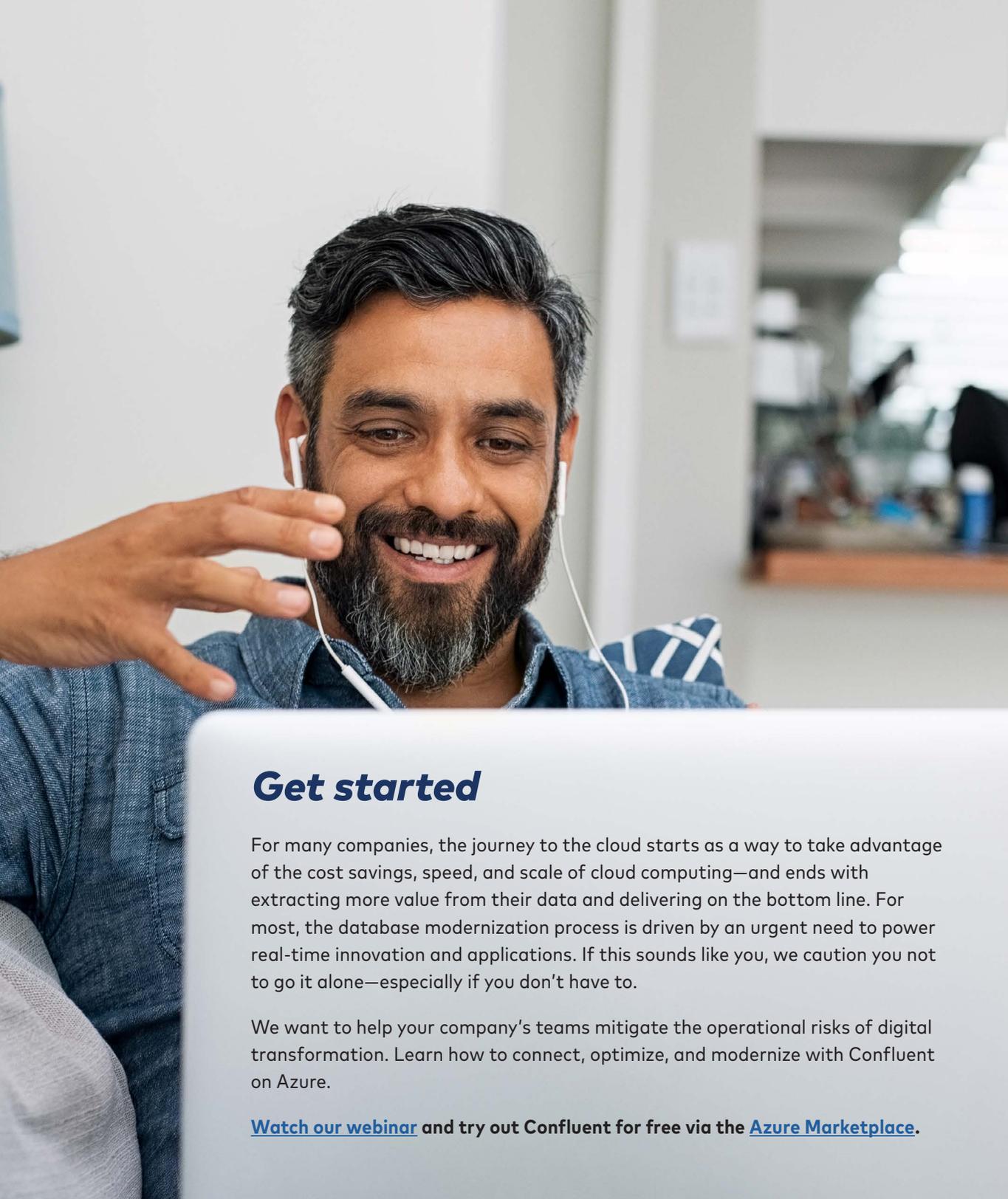
- **Challenge:** Embark on a digital transformation to respond to competitive market as well as new banking regulations, increase digital activation, respond to increasing payment volumes, and meet member expectations for customer experience.
- **Solution:** Nationwide decided to invest in a technology such as Confluent and digital capabilities to be primed for the next generation of digital innovation. Confluent is the foundation for an "event hub" and part of a resiliency and agility program.
- **Results:** Confluent is enabling agility and autonomy in digital development teams. Speed Layer, Streaming, and Kafka will help Nationwide maintain its service availability despite unprecedented demand and head off the threat from agile challenger banks.

## Viewpoint

- **Challenge:** Find a complete event streaming and data modernization platform to launch a fully managed Kafka-as-a-service solution.
- **Solution:** After learning more about Confluent Cloud capabilities, the team became one of the first users of Confluent Cloud on Microsoft Azure.
- **Results:** Viewpoint now leverages the fully managed service as the foundation of its next-generation architecture, which is designed to build real-time applications and aggregate data from legacy applications. Confluent Cloud on Azure helps the company stay competitive in the ever-growing construction software market.

*"We can better serve our legacy ERP customers by plugging an SQL connector into the backend and using ksqlDB to transform and combine data in Confluent Cloud on Microsoft Azure. It's now a 10-minute exercise rather than days or months of stitching together technologies."*

- Greg Gentling, Director of Enterprise Architecture, Viewpoint



## ***Get started***

For many companies, the journey to the cloud starts as a way to take advantage of the cost savings, speed, and scale of cloud computing—and ends with extracting more value from their data and delivering on the bottom line. For most, the database modernization process is driven by an urgent need to power real-time innovation and applications. If this sounds like you, we caution you not to go it alone—especially if you don't have to.

We want to help your company's teams mitigate the operational risks of digital transformation. Learn how to connect, optimize, and modernize with Confluent on Azure.

**[Watch our webinar](#) and try out Confluent for free via the [Azure Marketplace](#).**



### **ABOUT CONFLUENT**

Confluent is pioneering a fundamentally new category of data infrastructure focused on data in motion. Confluent's cloud-native offering is the foundational platform for data in motion—designed to be the intelligent connective tissue enabling real-time data from multiple sources to constantly stream across the organization. With Confluent, organizations can meet the new business imperative of delivering rich digital front-end customer experiences and transitioning to sophisticated, real-time, software-driven back-end operations.

To learn more, please visit  
[www.confluent.io](http://www.confluent.io)