CONFLUENT

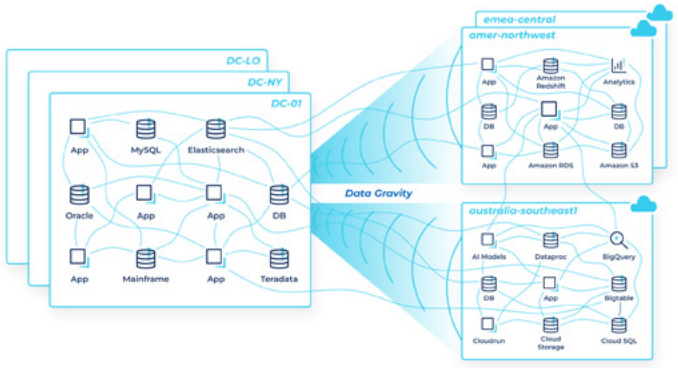
# Why you need data streaming for hybrid and multicloud data architectures

# How you ended up in a hybrid and multicloud world

Whether you're at a business that was born in the cloud, is just dipping its toes in the water with cloud, or is somewhere in between, chances are your organization is on a cloud journey at one stage or another. Maybe you ended up in the cloud as the result of strategic planning to take advantage of the simplicity, elasticity, and scalability that the cloud provides. Or perhaps mergers and acquisitions resulted in cloud environments that didn't make sense to migrate. Different teams from inside your business might have simply adopted various cloud services for whatever projects they were working on, where you just organically ended up with a bunch of different cloud service providers. Regardless of how you got there, you're most likely already operating in a hybrid and multicloud world.

But what about existing on-premises investments, many of which run mission-critical workloads? How can you leverage newer cloud services while ensuring that these on-prem environments are integrated with your cloud systems in order to ensure business continuity?


Ideally, your teams can build real-time applications using whatever cloud services they want without having to worry about where your data is or how they will access it. In practice, however, these teams often find themselves hindered by legacy on-prem systems and complex architectures. Data silos, data gravity, and complex networks of connections between systems slow projects down, increase costs, and hinder innovation.

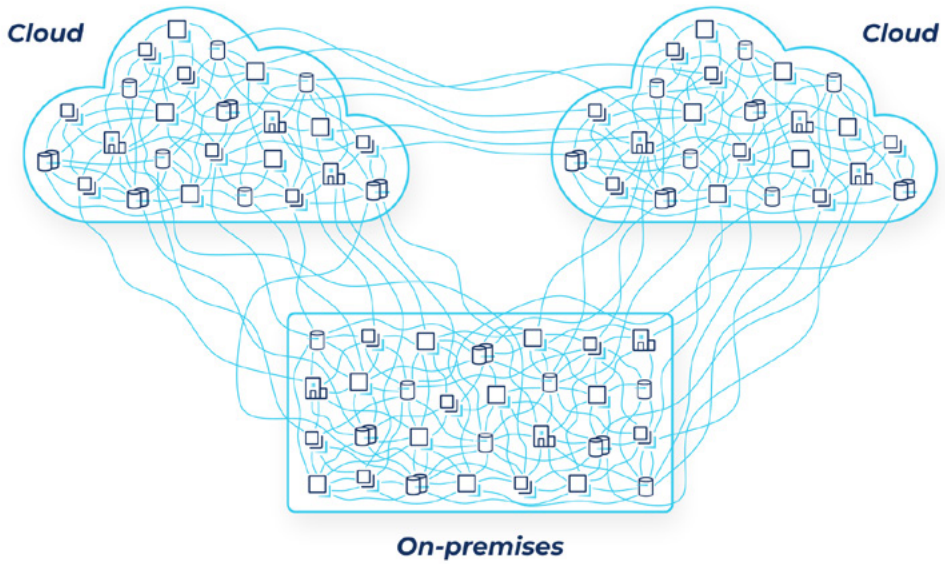



# Why point-to-point solutions for data movement are problematic

Cloud has helped businesses modernize, but most enterprises are still using the same batch ETL tools, messaging systems, APIs, and other homegrown systems they already had in place on-premises to power data movement across hybrid and multicloud architectures. The problem is that these approaches are slow, expensive, brittle, and insecure. They often result in a spaghetti-like mess of point-to-point connections between systems and across environments.

Periodic batch jobs mean you have different copies of data in different places at different times. This results in stale information being used to run your business. Your expensive and valuable engineering resources are being spent managing data pipelines and infrastructure projects instead of building new capabilities for your business. All of the brittle point-to-point connections between your systems each need to be networked, secured, monitored, maintained, and can easily break as data volumes increase. Your security and data governance challenges are exacerbated with each additional connection and as your teams each implement their own tools and processes.

As you add new cloud services these problems get exponentially worse because your teams establish even more connections, complex new cloud networking and security issues emerge, and you have to address all sorts of additional compliance and data sovereignty laws across different global regions. All of the architectural challenges you were already facing get amplified with the addition of new cloud environments, and some new cloud-specific challenges arise.




## Current problems



### Slow

Batch data transfer and legacy solutions mean data is not real-time or consistent across global systems.

### Expensive

Valuable engineering resources spent on data pipeline projects combined with costly egress charges increase TCO.

### Brittle

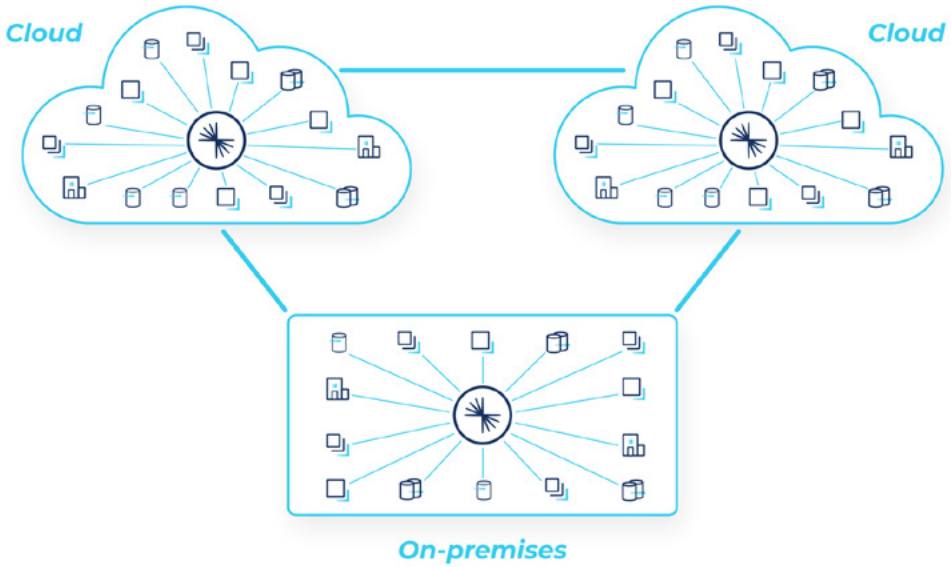
Lots of point-to-point connections each require complex networking, security, and monitoring. As data volumes, velocity, and variety increase, networks of point-to-point interconnections often break.

### Insecure

Security and data governance challenges increase as the number of interconnections goes up and as different teams across multiple lines of business share data with each other.

# Make your hybrid or multicloud architecture simpler, faster, and more cost-effective

Confluent enables you to overcome these challenges. Our data streaming platform eliminates the need for point-to-point connections and provides a singular, global, and real-time data plane instead, enabling you to unlock valuable data from the systems, applications, and data stores that run across any number of global environments and stream that data in real time wherever it needs to go. Our solution provides you with a modern hybrid and multicloud architecture that is fast, cost-effective, resilient, and secure, where your giant mess of point-to-point connections is eliminated altogether.




Confluent supports any combination of on-prem, single cloud, hybrid cloud, multicloud, or multi-region deployments, meaning we run wherever you do. Our 120+ out-of-the-box connectors make it easy to integrate your existing systems into Confluent, building on top of what you already have and mobilizing data for others to use across your organization.

## Benefits of using Confluent



### Speed

Give your teams real-time access to the data they need in the cloud services they want with a simple, globally connected data architecture. Build faster, more innovative customer-facing applications and more efficient backend operational systems.

### Cost Savings

Reduce hidden cloud costs and free up valuable engineering resources that are spent building, networking, securing, monitoring, and fixing data pipelines. Focus your valuable developer resources on projects related to the core business instead. Check out Forrester's Total Economic Impact study to learn more.

### Resilience

Eliminate single points of failure with Confluent's fault tolerant, horizontally scalable platform. Easily enable a disaster recovery strategy.

### Security

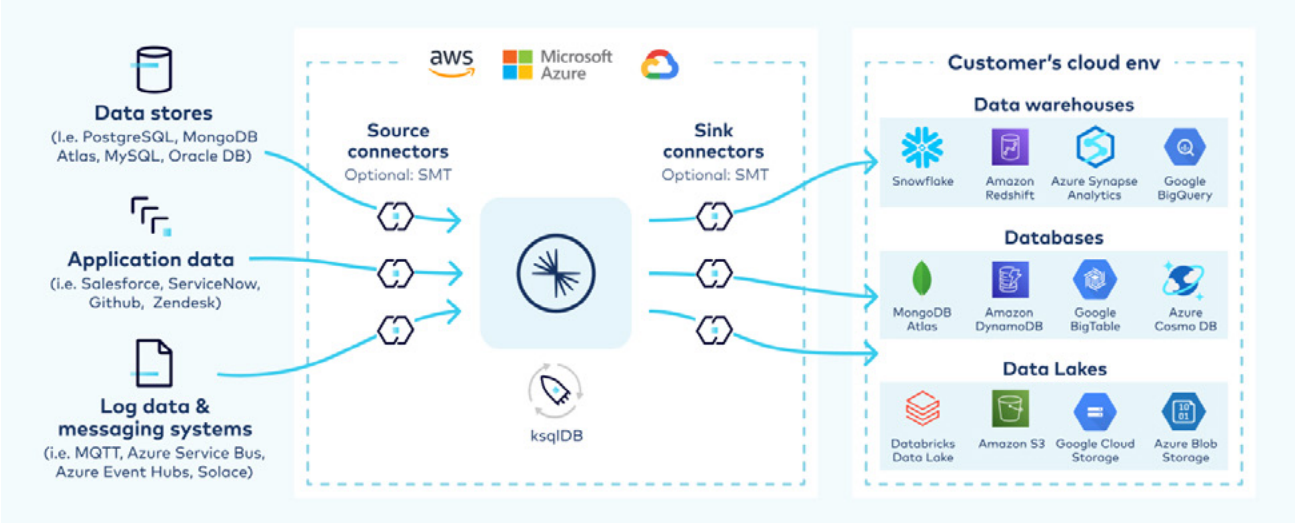
Enhance security with Confluent's Stream Governance suite, and by standardizing on a single data platform that only has to address security challenges once.

# Common hybrid and multicloud use cases

Confluent's solution for hybrid and multicloud architectures enables your data to flow freely between otherwise siloed and disparate systems, which unlocks an infinite number of new use cases. Below we've highlighted some of the most common use cases we've seen from Confluent customers, but this is just a few examples of what becomes possible once you have a real-time, global data plane that connects all of your organization's systems, applications, and data stores.

## Data Warehouse Modernization

With Confluent's data warehouse modernization solution, you can connect and migrate existing data stores and data producers to the cloud data warehouse of your choice in order to power real-time analytics. Many enterprises are in the midst of modernizing their self-managed data warehouses, databases and data lakes to fully managed cloud services. But the journey to get there is proving to be long, arduous and expensive.




### Reduce the TCO of DW data pipelines

Build real-time data pipelines in the programming language of your choice so you can connect hybrid and multicloud data to your cloud data warehouse faster.

### Unlock next gen event streaming at cloud scale

Build on an open platform, powered by Apache Kafka, to increase throughput and reduce latency for real-time data applications or dashboards.

### Connect to any app or data

With 120+ connectors and cluster linking, enterprises can connect to more data and even across multiple DWs no matter where it lives.

KeyBank

"We are currently in the process of moving our on-prem Teradata data marts to Google BigQuery, and we see a strong use case for Confluent Cloud with that move."

**Michael Roseman**
SVP and Chief Architect at KeyBank

Read the case study

Learn more about Confluent's solutions for Streaming ETL and Data Warehouse Modernization

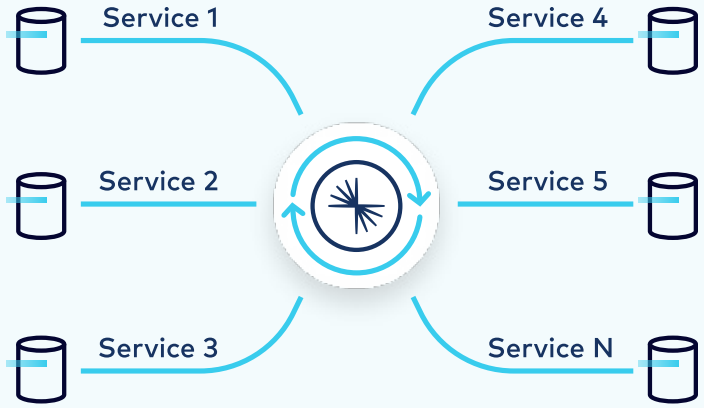
## App Modernization

Well established enterprises are embarking on modernization and digital transformation initiatives that enable the rapid development of new experiences and applications that delight their customers and can give them a leg up on their competition. But these transformation initiatives are inhibited by legacy architectures that suffer from data silos, tightly coupled architectures, complex interdependencies and a number of fragile core systems that may not scale to meet the demands of real-time use cases.

Confluent's solution for event-driven microservices helps you incrementally modernize your applications with an agile architectural framework that is fully decoupled, horizontally scalable and fault-tolerant by design.

**Why Build with Confluent**
Asynchronous service communication and development

- Fully decoupled
- Pub/Sub messaging
- Elastic scalability
- Persistent storage
- Process data in flight and real-time




### Increase developer velocity

Eliminate the operational hassles for cluster management, so your developers can spend more time building applications. Remove dependencies between systems with a completely decoupled architecture and standardized schemas. Build and scale stateful services and real-time stream processing applications, faster using familiar SQL syntax.

### Build highly reliable and fault tolerant microservices

Facilitate easy data access so each team has access to the right data at the right time for their specific needs. Eliminate slowdown and outages due to slow consumers. Meet regulatory needs by saving trusted, high-quality data for as long as your business needs.

### Reduce technical debt and operational costs

Incrementally modernize from monoliths to microservices to reduce the operational costs of running legacy applications. Migrate your supporting data infrastructure at your own pace to a modern event-driven architecture. All with no downtime or business disruption.

BOSCH

"Confluent Cloud and Kafka are the heart of all our projects, serving as a backend for new mobile apps and for collecting data from assembly lines and legacy systems."

**Ralph Debusmann**
Solution Architect, Bosch Power Tools BDO, Digital Offerings

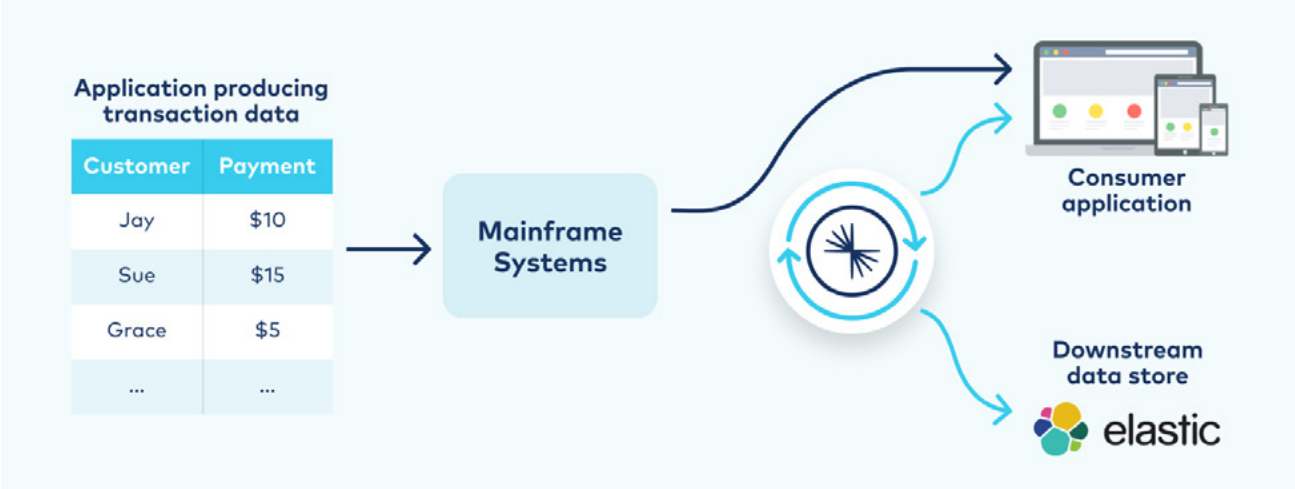
Read the case study

Learn more about how Confluent enables event-driven microservices

## Mainframe Augmentation

Mainframes, which date all the way back to the 60s, continue to house mission-critical data, systems, and applications for some of today's largest organizations. Because of their trememdous staying power, it can be difficult or impossible to migrate off of these mainframe systems. It can be equally challenging to cost-effectively integrate mainframes with modern cloud systems to power real-time applicaitons at scale.

With Confluent's solution for mainframe augmentation, you can unlock your mainframe data for real-time insights without incurring the complexity and expense that come with sending ongoing queries to mainframe databases




### Bring real-time to mainframe

Reduce reliance on batch processing. Capture mainframe data in real-time for fast analytics and business intelligence with minimal latency. Correlate with other data to drive the needs of the digital enterprise.

### Modernize and drive efficiency

Reduce the complexity of aging technology that's deeply interwoven with the specific logic of the business. Integrate mainframe legacy applications with modern distributed applications by making the data readily available with event streaming.

### Reduce cost of data access

Save MIPS related license fees while seamlessly scaling your deployment to service your rapidly growing digital service loads.

alight®

"Our mainframe systems represent a significant component of our budget...The UDP platform [built with Confluent] enabled us to lower costs by offloading work to the forward cache and reducing demand on our mainframe systems."

**Chris Roberts**
Vice President Enterprise Architecture, Alight Solutions

Read the case study

Learn how Confluent can help you **augment, modernize, and integrate your existing mainframe systems** with newer cloud services

# How businesses have found data streaming success

Roosevelt

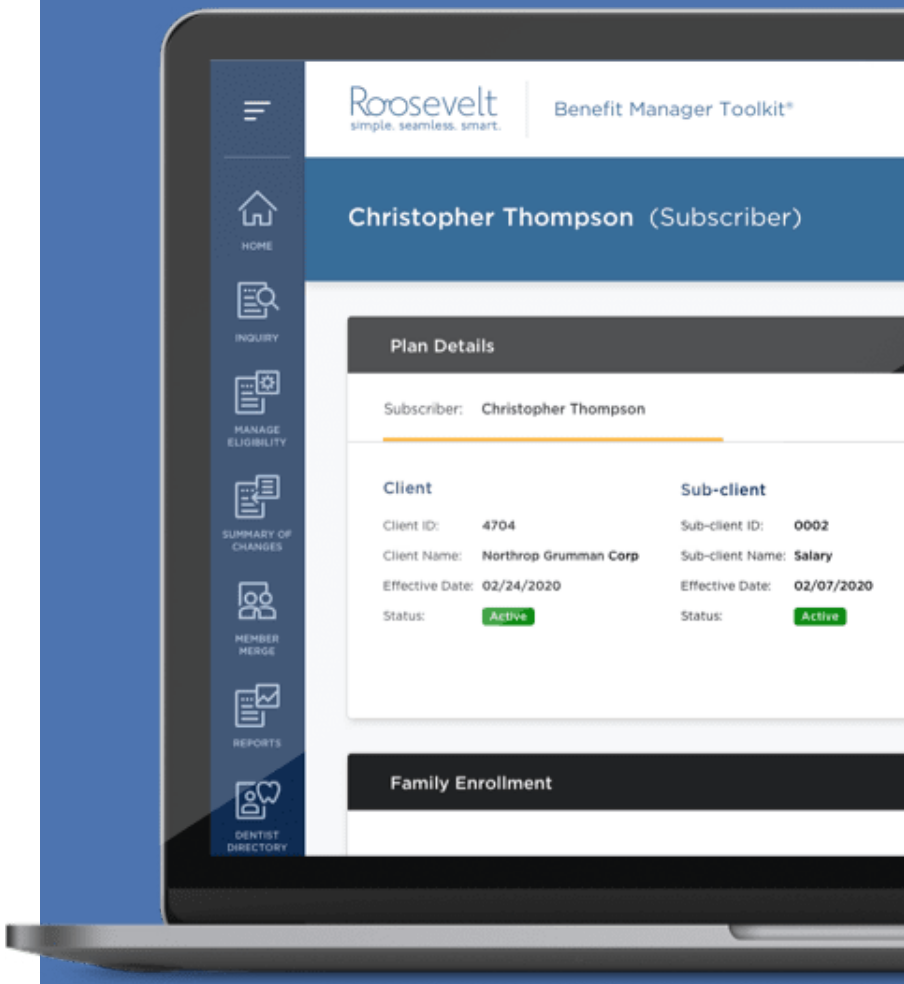
**Challenge:**
How to productize an internal claims processing service designed for internal use, and sell it to financial services, pharma, and other vertical customers who want to consume it across Azure, AWS, and GCP.

**Solution:**
Used Confluent to maintain real-time consistency of data across environments and move away from a monolithic architecture.

**Results:**
Successfully enabled their customers to increase auto-adjudication rates from below 80% to over 95% without any human intervention at all, making this Confluent-powered solution a successful product rollout for Delta Dental.

"Confluent enables us to achieve our goal of being cloud-agnostic; we know as long as Confluent is there we'll be able to follow our strategy."

**Matt Osentoski**
Principal Software Developer at Roosevelt Solutions LLC



# What you can do next

Whether you're migrating to the cloud, augmenting your on-prem systems or buliding a fully multicloud architecture, we have a solution for you. Confluent can help make your data architecture simpler, faster, and less expensive, regardless of where you're at on your cloud journey.

### Migrate

Incrementally migrate from legacy on-premises infrastructure to and across clouds

### Augment

Easily integrate existing systems and modernize at your own pace

### Innovate

Build state-of-the-art cloud-native applications and accelerate time to market

**Are you an architect? Want to learn more?** Watch this webinar & demo and employ our hybrid and multicloud best practices detailed in this reference architecture.

Simplify your data architecture with a more reliable, more secure, and faster solution that unlocks new use cases by making all of your organization's data available to everybody who needs it. Reduce TCO, increase scalability, and increase resilience with Confluent's solution for hybrid and multicloud architectures.

**Are you a developer? Do you want to stop managing pipelines so you can build next-gen apps faster?** Start a free trial of Confluent Cloud now, or check out our developer website to learn more about how you can build innovative new applications that operate on real-time streams of event data.

**If you're an executive looking to maximize the value of cloud so you can support major business initiatives and accelerate development velocity,** check out our hybrid and multicloud solution page and read success stories about how your industry peers are using Confluent.



CONFLUENT

## 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 backend operations.

To learn more, please visit www.confluent.io