

CONNECTED GOVERNMENT

Data in Motion Powers the Next Generation of Government

As government agencies at every level—state, local, and federal—embrace digital transformation, a complete data picture, available in real time, is critical. This “in the moment” experience will drive more effective decision-making and services. Of course gathering this data is not easy. It requires reaching across bureau, component, agency, and department boundaries and integrating an ever-increasing number of applications, platforms, sensors, and IoT devices. How can government entities transform the way they work with data to protect the public, improve infrastructure, manage transportation, and more?

Introducing data in motion

Through a data in motion approach, organizations can tap into data streams that are continually evolving and flowing across government functions. Traditional data at rest approaches that include databases, data warehouses, and data lakes are useful for retrospective analysis and queries, but lead to data silos and high barriers to leverage data across programs or agencies. Data streaming, on the other hand, puts data in motion for real-time use across organizational boundaries. In this model, the sharing organization publishes a stream of events (including changes and deltas) as they occur which are then consumed by any authorized organization or system.

Apache Kafka®, an open source distributed data streaming platform capable of handling trillions of events per day, has become the foundation of modern data architectures. While the data streaming enabled by Kafka is a powerful tool, it only offers part of what agencies need to move to a data in motion architecture. In order to connect, process, and react to data in motion across today’s hybrid on-prem/cloud environments, there are a number of additional features required, including security, data governance, management, off-the-shelf integrations, load balancing, etc., that lead to costly and high-risk deployments.

Confluent has re-engineered Kafka to be cloud-native, complete, and everywhere, allowing developers to focus on building next-generation connected government services—combining the best of open source innovation with enterprise support for mission-critical use cases.



Data in motion in practice

Putting data in motion allows agencies to:

- Deliver citizen services across the channel of their choice
- Integrate disparate data sources for use by modern applications
- Improve decision making with access to real-time data
- Facilitate inter and intra agency collaboration while maintaining control of owned data
- Achieve more cost efficient data synchronization and data processing
- Develop and manage smart infrastructure and transportation programs

“Rather than storing the data away in silos, where it’s static, and bringing retroactive questions to the data, what you want to do is delivery a constant data stream to the questions in real time.”

—WILL LAFOREST, CONFLUENT PUBLIC SECTOR CTO

Getting your data in motion requires careful planning and the right partner. Confluent offers a data streaming platform that supports the flexibility, durability, and security required for complex, large-scale operations. Data sharing with Confluent means that data consumers can react immediately as data is created at the source. Simultaneously, costs are optimized by only sharing changes and using a technology designed for sharing data with multiple downstream consumers.

Ready to get started? Contact a Confluent expert today

Email us at publicsector@confluent.io | Or visit www.confluent.io/government/ for more details