How can government enterprises modernize their data infrastructures efficiently to advance their digital ambitions when they must contend with IT environments that are highly heterogeneous, siloed, and populated with hard-to-access, legacy systems?

Agencies respond to this challenge in various ways. Some simply disregard high value data sources when fielding new applications, because they lack the know-how or resources. Others continue to invest in expensive and time consuming point-to-point integrations, using legacy integration tools or custom code. These approaches fall short because they are neither scalable nor responsive to agencies’ evolving needs.

The good news is that the old approaches for designing, building and running applications have fundamentally changed with the advent of cloud, DevOps, and microservices. Combined with Confluent, these approaches and technologies make it possible for government organizations to easily inject legacy data sources into new, modern applications and adapt to changing real world circumstances faster than ever.

Event-Driven Data Streaming For Modern Government Applications

Confluent, Apache Kafka for the enterprise, is the modern data framework for unlocking data and serving the new applications demanded by users. Using an event-driven architecture, Confluent shifts data from being passive to an active asset for the agency. Confluent drives application behavior as fast as the mission rhythm allows, collapsing the space between data and mission.

Confluent can connect to any data source, whether mainframe or other legacy systems, cloud-based storage and applications, or even real time data. This can be within the agency enterprise or beyond. Once a connection to a data source has been established, it can be reused and recomposed with other sources to rapidly create new applications and user experiences. With this decoupling of sources and targets, Confluent relieves agencies of the time and resource-intensive chore of building point-to-point integrations every time they build a new application. This decoupling is also why Kafka has become pervasive as the data plane for microservices strategies.
This architecture gives agencies the ability to gradually re-platform as their priorities and resources permit. Confluent can pull legacy-based data into modern applications, either in the cloud or on-premise, thus presenting a path for agencies to eventually remove or replace those legacy systems. Robust data replication ensures that users aren’t impacted and data is not lost in the event of an outage. Critically, the data event streams persist in Confluent for as long as desired making it possible to marry historical data to real time in order to produce rich contextualized applications. Persistence also provides a crucial resilience for applications deployed into environments with limited or intermittent connectivity, or when surges in data volumes overwhelm ingest capacity of systems.

The event-driven paradigm means the users and applications are delivered continuously relevant data and context. This spares the overhead and time delays that arise when data and information only come as a result of their action or apps periodically polling the source systems. Any addition, change, or deletion of data constitutes an event that invokes the desired functions in numerous downstream applications. Consequently, users receive highly personalized, timely and relevant information. These combined characteristics allow customers to rapidly field new capabilities to users and increase their speed of innovation. For this reason, some customers describe Confluent as the central nervous system for the enterprise.

Confluent customers provide better citizen experiences. They accelerate their vetting processes. They strengthen their cyber posture with enhanced threat hunting and smarter data delivery to SIEMs and other operations tools. Or they create real time situational awareness tools for better law enforcement, national security measures, readiness reporting and mission execution. They build systems that can pinpoint the location of an item anywhere in their supply chain at any time. They put their data to work as they continuously imagine new capabilities.

Why Confluent?

Confluent knows Apache Kafka better than anybody. In fact, the original creators of Apache Kafka went on to create Confluent as a way to extend Apache Kafka’s event streaming capabilities to meet the more demanding enterprise needs of government agencies and businesses to develop, deploy, operate, and secure modern data-driven applications.

Deploy new systems rapidly with more than 100 connectors to sources and sinks. Democratize the use of the platform with ksqlDB, an interface that analysts will find immediately familiar and useful to create new event streams. Ensure resiliency with powerful data replication, essential for many geographically distributed operations. Conform to security requirements with Role Based Access Control, FIPS 140-2 compliance and data encryption. Scale up and scale down the infrastructure based on workload demands. Monitor system health and diagnose performance issues with Confluent Command Center. These and other capabilities, combined with Confluent’s unmatched support (and US Citizen Support for those customers that require it) make us the right choice for Government customers.

About Confluent

Confluent is a Mountain View, California-based company founded by the original creators of Apache Kafka. We support a client base that spans all sectors of Federal Civilian Government Agencies, Defense, Intelligence, State and Local Governments and Education.