

# Secure Workflow from Data to the Edge

Secure Automated Workflows:  
Orchestrating the Movements from Data  
to Intelligence to Action with Kinetic Data

WHITE PAPER

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## Introduction

In the complex world of Department of Defense (DoD) mission-critical systems, secure, adaptive, and efficient workflow automation plays a pivotal role. The multitude of processes, systems, and resources necessitates a comprehensive solution that not only ensures data security and operational flexibility, but also fosters seamless integrations and interoperability. Kinetic Data has emerged as a premier choice in this landscape, providing a robust and scalable platform designed to accommodate the diverse and evolving needs of the DoD.

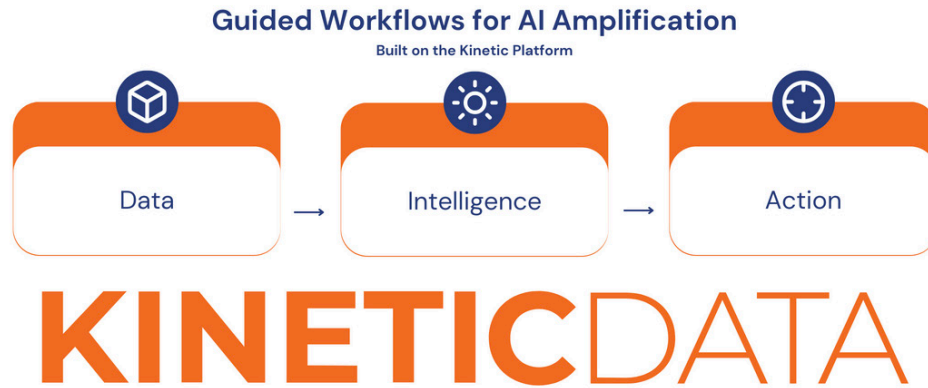
This white paper illustrates the attributes and capabilities that position Kinetic Data as an ideal solution for the DoD's mission-critical delivery needs. By the end of this document, the reader will understand:

- How Kinetic Data can deliver mission critical success built on a robust security framework, flexible deployment options, and adaptive and scalable architecture;
- Our focus on digital user experiences from the back-end requirements to front-end edge delivery options; and
- The benefits of our workflow automation capability to automate data movement, regardless of format or structure, between multiple systems with speed and safety.

Each section will reveal how Kinetic Data aligns with the DoD's operational demands, offering practical solutions that elevate efficiency, flexibility, and security in workflow automation. We aim to provide a comprehensive understanding of how Kinetic Data stands as a top choice in the landscape of workflow automation for the DoD, while reshaping the business model, making acquisition simple and straightforward.



# Automated Intelligence Workflows



This diagram encapsulates the dynamic role of Kinetic Data in the transformation and delivery of data within DoD operations. On the left is a diverse array of “Data” sources, providing the raw material for actionable intelligence. In the center lies the “Intelligence” tools and platforms, a crucial pivot where raw data is transformed into insightful intelligence. Finally, on the right, we have “Action”, where the processed intelligence prompts decisive actions at the edge. The arrows connecting these tools represent Kinetic Data, signifying its vital role in propelling the data along this continuum.

The following sections explain how Kinetic Data streamlines this journey, ensuring the efficient, secure, and adaptive movement of data from its source, through the intelligence processing phase, to final delivery and action.

## Kinetic Data Security

The Kinetic Platform embodies security and adaptability from its core. It implements end-to-end encryption for data both at rest and in transit, and supports flexible access controls via Attribute Based Access Control (ABAC) with Common Access Card (CAC) authentication. Whether it’s on-premises or in a private cloud, the platform can be deployed in a manner that best aligns with the organization’s needs. Furthermore, it offers consistent performance, flexibility, and reliability through horizontal scalability architecture. The objective is to offer fortified and resilient environments that enables secure workflow automation at every juncture.

Our platform sets the bar in prioritizing and reinforcing security for our clients, particularly in line with the DoD’s diverse and evolving needs. Designed with a security-first mindset, Kinetic Data ensures robust protection of user information through end-to-end encryption both at rest and during transit. Data interaction is meticulously safeguarded, whether it is within the confines of the platform or extending through secure integrations with external systems. This stringent approach, underpinned by the regular rotation and withdrawal of shared encryption keys, instills trust and assurance indispensable for sensitive defense applications.

Kinetic Data's use of Attribute Based Access Control (ABAC) is a key component of our commitment to adaptive security. ABAC is a powerful, context-centric access control model that considers user attributes, resources, environmental factors, and policy rules in real-time to make access decisions. It perfectly harmonizes with the dynamic needs of the DoD, granting or revoking access as necessary.

Furthermore, the Kinetic Platform's support for Common Access Card (CAC) authentication solidifies its adherence to Zero Trust principles, verifying all user identities before granting access. The combination of ABAC and CAC support ultimately provides hardened layers of protection against external threats, creating an environment that empowers secure workflow automation. The Kinetic Platform, with its rigorous security measures and flexible access controls, is ideally suited to support the DoD's quest for robust, secure, and efficient workflow automation.

## **Kinetic Data Scalability**

The Kinetic Platform utilizes the architectural concept of horizontal scalability, which means it can handle increased workloads by adding more machines or systems to the network rather than upgrading a single machine. This aspect is crucial for organizations like the DoD that often face sudden increases in user demand. By adding more nodes to the network, Kinetic Data maintains steady performance, even during periods of high use.

This scalability has several practical advantages. It offers flexibility, enabling the platform to adapt to the organization's changing needs without the need for complete system overhauls. This saves not only time and resources but also reduces periods of inactivity.

Furthermore, by spreading the workload across multiple nodes, the risk of system failure is minimized. If a node fails, the system continues to run, preventing service interruptions. It also helps balance the workload across the network, ensuring steady performance. Therefore, Kinetic Data's ability to scale horizontally is a key factor in its ability to provide reliable, consistent service for complex operations like those in the DoD and our armed services.

## **Deployment Options with Kinetic Data**

Kinetic Data offers flexible deployment options to accommodate the varied needs and security considerations of different organizations. The software can be deployed on-premises, offering a secure solution within an organization's own infrastructure. This option is ideal for organizations that require full control over their data and systems due to sensitive information or stringent regulatory requirements.

Alternatively, Kinetic Data can also be hosted in a private cloud environment. This option provides the advantages of cloud computing such as increased scalability and reduced IT overhead, while still offering a dedicated and secure environment. The private cloud deployment is suitable for organizations that want the benefits of the cloud, yet still maintain control over their data and infrastructure.

Moreover, Kinetic Data has adopted a multi-tenancy approach, allowing multiple users or teams to use the same instance of the software, while keeping their data isolated and secure. Each tenant operates independently, with its own users, workflows, rules, and data.

Multi-tenancy brings several benefits, including cost-effectiveness as resources are shared, and efficient use of resources as they can be allocated and scaled per individual tenant needs.

This approach is particularly beneficial for large organizations like the DoD, where different departments or units can operate as separate tenants, yet leverage the same underlying software instance. This balance between shared resources and individual autonomy makes the Kinetic Platform an adaptable and efficient choice for diverse and complex organizations.

## Integrations

Integrations are critical to the success of introducing platforms that enable digital modernization within large organizations. No app exists on an island. They need to work with the larger ecosystem, especially as adoption expands.

With the Kinetic Platform, all integration plugins are built to a standard specification that defines a set of inputs, outputs, and connection information. These plugins are built using code so that they can be battle tested and distributed throughout the platform confidently.

The code that runs within a plugin can be fully configured to import libraries and SDK's making them extremely flexible and able to work with just about any system. Plugins can be built to use any protocol imaginable like REST, SOAP, command line, or interact directly with a database.

Once built, these integrations get packaged up and imported into the platform. After connection information is configured, integrations can be used in a low-code fashion by non-developers inside of Kinetic's Platform and workflow designs.

## Digital Experiences

At the forefront of Kinetic Data's user experience is a highly customizable and adaptable front-end interface. The platform gives users the freedom to choose their preferred web framework, accommodating a wide range of choices. While Kinetic Data primarily uses React due to its versatility and efficiency, the platform is flexible enough to work with other frameworks, catering to the varied preferences of developers and organizations.

An essential characteristic of Kinetic Data's user interface is its ability to provide pixel-perfect experiences across multiple devices. This ensures a consistent and engaging user experience, regardless of the device used. The platform's responsive design adapts seamlessly to different screen sizes, enhancing accessibility and usability. This is particularly beneficial in diverse environments such as the DoD and armed services, where a wide array of devices may be in use.

Understanding the challenges of low bandwidth situations, especially at the edge, Kinetic Data has the capacity to create lightweight front-end portals. These portals can be built as standalone interfaces or integrated within other systems, further demonstrating the platform's adaptability. This feature is instrumental in ensuring uninterrupted and efficient access to the platform, even in bandwidth-restricted environments.

In summary, Kinetic Data's front-end capabilities offer an ideal blend of flexibility, adaptability, and resilience, ensuring a seamless and consistent user experience across various devices and connectivity conditions. The Kinetic Platform is completely data agnostic, offering flexibility to handle any data type including data formats, pointers, tags, requests and calls, and scheduling. It seamlessly handles ad hoc or scheduled data transfers.

## Summary

Kinetic Data offers a robust and versatile solution for the DoD and service branches, securing and streamlining the complex landscape of workflow automation. Its core attributes - stringent security measures, adaptability, scalability, seamless integrations, and built-for-purpose digital experiences - make it a platform equipped to handle the challenges of a fast paced, interconnected environment.

At its core, Kinetic Data provides an integration infrastructure that supports secure data flow across various protocols and systems, ensuring operational efficiency and resilience. The platform's customer-first business model aligns perfectly with the evolving needs of the DoD, making Kinetic Data an excellent choice for driving digital transformation in a secure, efficient, and user-friendly manner.

## About Kinetic Data

Kinetic Data is a dual-use software company specializing in enterprise workflow automation, specifically for self-service user experiences. Our Digital Experience Platform (DXP) was designed based on our two decades of experience with large government agencies and commercial enterprises, enabling platform modernization and workflow integration projects. We believe in enabling organizations to leverage their existing investments in critical systems, technologies, and processes by simplifying digital user experiences in a self-service model that decouples best-of-breed capabilities from business specific requirements, allowing end-to-end workflow automation that reduces complexity and overhead.

**For more information, visit [KineticData.com](https://www.kineticdata.com).**