

KINETIC DATA

How Kinetic Data Approaches Integration

Flexible, scalable and extensible

Overview

The Kinetic platform is a customer-centric system of engagement built for future flexibility and extension. The core components that make up the platform are as follows:

- **Kinetic Request** - web display and dynamic form builder
- **Kinetic Task** - workflow and automation
- **Kinetic Bridgehub** - API and integration coordination
- **Kinetic Filehub** - store and retrieve files and attachments

Kinetic Request

A web app for people to use along with pre-defined workflows built into the system. There may be different views based on policy or business logic. For example, someone making a request, approving something or fulfilling a request will use Kinetic Request.

Kinetic Request includes various data objects including Users, Teams, Forms, and 'Kapps' (Groups of Forms). These have well defined relationships and structures that can be arranged to satisfy all types of requirements. Additionally, the system has policy-based security that allows cascading permissions to be applied to elements. This enables robust control over viewing, creating or updating data, as well as managing system elements.

Forms are built quickly using a drag-and-drop builder and match their corresponding theme. Themes are isolated from the rest of the Kinetic platform and can be customized and extended to achieve the desired appearance and functionality desired for each use. Themes are collections of Javascript, CSS, and HTML which can be built using traditional Java Server Pages (JSP) or frameworks like React and Angular.

Kinetic Request provides all of the plumbing required to make a fast, secure, and reusable web application. Kinetic Request performs authentication which can include PIV/CAC cards, SAML and/or LDAP. It also manages security, forms, and data storage and can be configured to trigger events when data within the system is changed. These events are webhooks that send relevant data about the event to a restful API. The most common use case is to call the Kinetic Task engine when a form is submitted; kicking off a workflow process.

Kinetic Task

Most applications have workflow, data processing logic and business rules to accompany the user interface. Kinetic Task is our scalable workflow and business process automation tool. Kinetic Task enables you to configure and author workflows using a drag-and-drop builder. Kinetic Task can also be used as middleware for teams that need an independent integration solution.

These workflows are configured as 'Task Trees' and can be simple or complex; as required. Task Trees are initiated when they are called via their API; commonly a webhook from Kinetic Request. Task trees are made up of a collection of 'Task Handlers', or functions within a process. Task Handlers are imported into the system by an administrator and then organized and reused across trees within Kinetic Task.

Task Handlers are designed and packaged in a standard format. Handlers define their inputs, outputs and actions. Task Handlers are written in Ruby and can perform their actions via any connection method like REST, SOAP, Direct Database and others. 400 common functions are pre-built as well as examples on how to build custom Handlers using common connection methodologies.

In this together

We have vast integration experience and have delivered many projects integrating enterprise systems. Generally, if we have access to test integrations, we will document and publish them for our clients and partners to use for free.



Wally. Our mascot.

KINETIC DATA

Building Blocks

As systems change or are replaced, adapters can be updated or swapped out without the need to make any updates to front-end forms and portals.

Build it once

We've designed our software to enable future flexibility, increased agility, and rapid development. Components are designed to be reusable.

Training

Kinetic Data provides customers with training for building apps and custom integrations. The training is typically less than a week and can be delivered on-site, at Kinetic Data Headquarters or in a location you chose.

Professional Services

Our services team can work with project managers and teams to build integrations and other key functionality required. These engagements can be full scale implementations or a set of specific requirements like layout, theming, and many other aspects.

Additional support and training content can be found on our community site: <http://community.kineticdata.com>

Kinetic Bridgehub

Data is everywhere and many app experiences typically require integrations with other systems. Kinetic Bridgehub and Kinetic Request combine to form a powerful, flexible and reusable solution when data is required to populate a table or drop-down list from another system.

Kinetic Bridgehub enables integrations by transforming a query into a standard structure that Kinetic Request knows how to process. Bridgehub acts as a management interface for connections to other systems.

Bridgehub ships with a number of adapters to common systems including LDAP, Sharepoint and other common systems. These adapters are responsible for translating a query and its response into the expected format. As systems change or are replaced, adapters can be updated or swapped out without the need to make any updates to front-end forms and portals.

Bridgehub adapters are built in a standard format, and written in Java. Administrators are able to build, test and import their own adapters. Adapters are isolated from the rest of the Bridgehub application, creating adapters is encouraged and does not negatively impact future enhancements. Bridgehub adapters define how we're connecting to, authenticating with, querying, and transforming the data retrieved into the standardized responses from target systems.

Kinetic Filehub

Kinetic Filehub is similar to Bridgehub in many ways. Filehub, however, is responsible for interacting with files uploaded from Kinetic Request forms. Similar to Bridgehub, Filehub adapters are what make it special. Storing files is complex. Where you store files is typically regulated so Filehub has adapters that interact with external file stores like Amazon's S3 or locally on a file server.

Filehub adapters handle authenticating to filestores and understand how to query and retrieve files in a standard format that Kinetic Request can understand. Administrators can build, test and import their own adapters for use within the platform. Summary

We've designed our software to enable future flexibility, increased agility, and rapid development. Components are designed to be reusable. Typically, bridges and handlers are built once and then reused over and over to allow for rapid and continual improvement. This design also enables extension of the software without coding. Once the system is functional the integrations can be leveraged by people that simply understand what needs to be accomplished.

Skillssets Required

Kinetic Request works as-is with no experience whatsoever, however, if a specialized front-end theme, navigation or complex form components is required, experience with HTML, CSS, JavaScript is useful and frameworks like React or Angular will be helpful.

Kinetic Bridgehub / Filehub will only require development to build adapters that are not already available [here](#), a developer with JAVA development experience will be needed.

Kinetic Task requires development to build Task Handlers and functions that are not already available [here](#), a developer with Ruby development experience will be needed.

Training / Implementation Options

"Teach others to fish" is one of our core philosophies. We do offer consulting services and love helping customers with initial implementations. However, we find that the most successful projects are those where our clients extend the value, with their own resources. Regardless of needs, we offer options to make your project successful.