Florida County Using Data to Better Serve Its Most Vulnerable Citizens

Use Cases

- An organization with decentralized CSV, XLS, JSON or XML files with PII, HIPAA, or other sensitive data;
- Desire to aggregate the data in a data warehouse on AWS to run queries and build reporting dashboards;
- Require the ability to automatically link data across sources based on PII or other criteria;
- Accomplish all of this in a secure and compliant manner.

The Challenge

A Florida County with a population of roughly 1 million serves its most vulnerable citizens through various solutions delivered by their Human Services Department, including access to medical care, detox programs, emergency financial assistance, and much more. Each program within Human Services manages their own data, with all of the data containing various levels of PII and most of it including HIPAA data. With 27 disparate data sources across roughly 900 historical files, and no way to link a citizen across multiple programs, they lacked visibility into which citizens were involved in multiple programs and which citizens in need were missing out on program from which they would benefit.

> o *Siloed Human Services programs with no cross-program visibility*
>
> o *27 disparate data sources*
>
> o *900 historical files*
>
> o *Contain PII & HIPAA data*

The data from Human Services programs was extracted into CSV files on a regular basis and forwarded to the County's Information Technology Business Intelligence team for the purposes of generating monthly reports and dashboards. It took weeks of manual CSV file manipulations before feeding the files to Power BI to generate the reports and dashboards. To say the least, the process was tedious, time-consuming and error-prone.

The County desired an efficient and effective way to organize its Human Services program data and make it actionable in order to better serve its citizens.
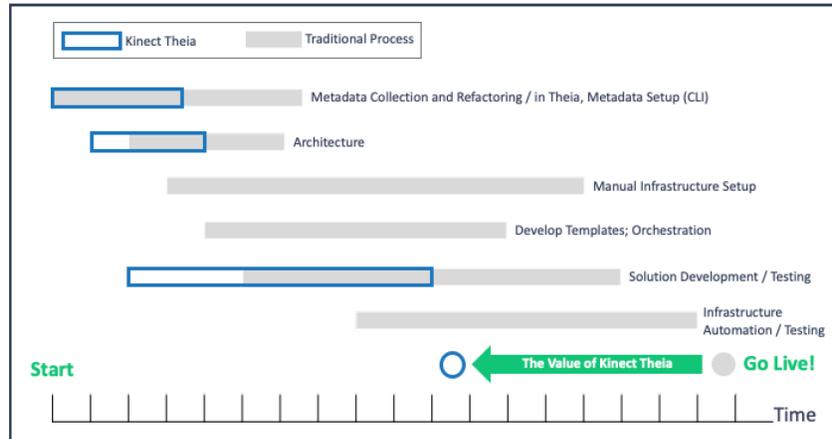
The Solution Delivered by Kinect on AWS

Kinect built the County's Human Service Department a fully automated business intelligence platform on AWS, including these capabilities:
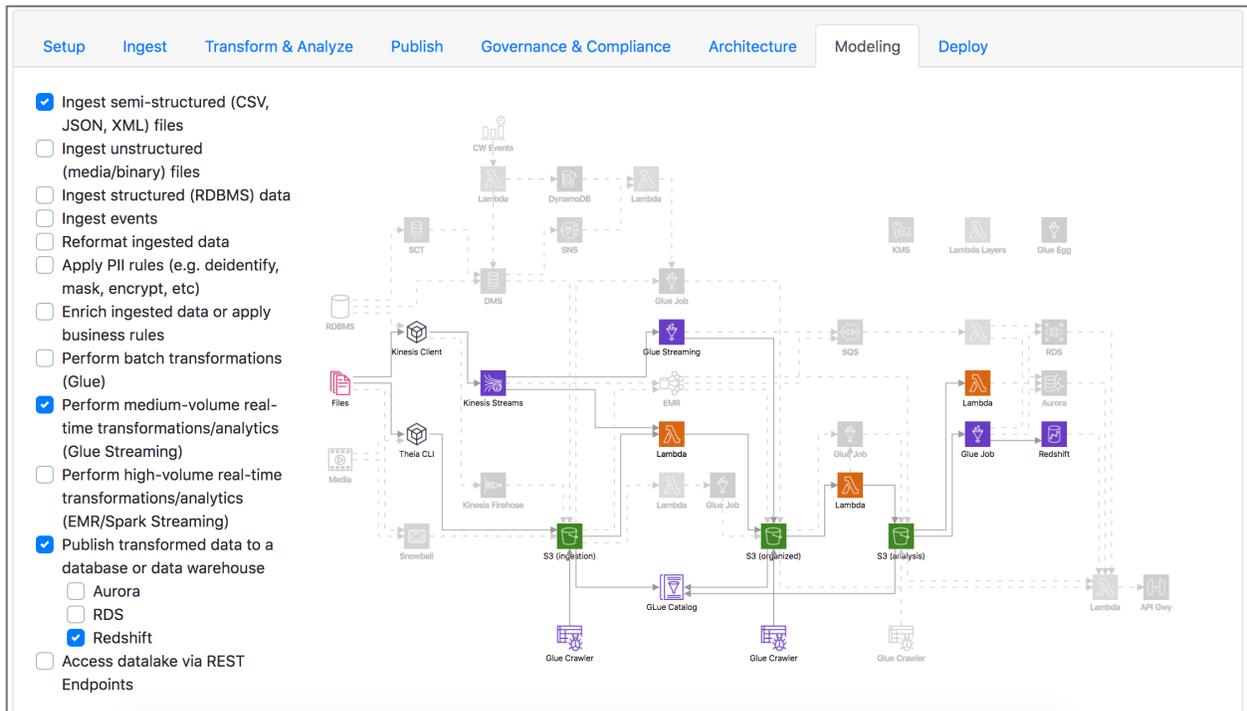
- Ingest any number of CSV files from any program;
- Safely store it fully encrypted in an AWS data lake;
- Apply changes (CDC/Change Data Capture) to existing data;
- Trigger an automated and user-facing process to allow users to review and match PII information from disparate data records and sources;
- Apply consistent data formatting rules, such as dates, timestamps and amounts;
- Enrich data with standard event information;
- Publish results to a data warehouse to generate dashboards and reports;
- New file types able to be added through a simple user interface in minutes;
- When a new file type is set up, ingestion files get processed automatically and data becomes immediately available for consumption via BI tools.

How Kinect Theia Expedited the Project

Kinect Theia is an end-to-end Architecture and Infrastructure automation framework, utilizing AWS native managed and serverless technologies. It shortens or completely eliminates every step of the manual process, allowing you to stand up high-performing, secure and cost-effective data platforms on AWS in a fraction of the time they take to build from scratch.
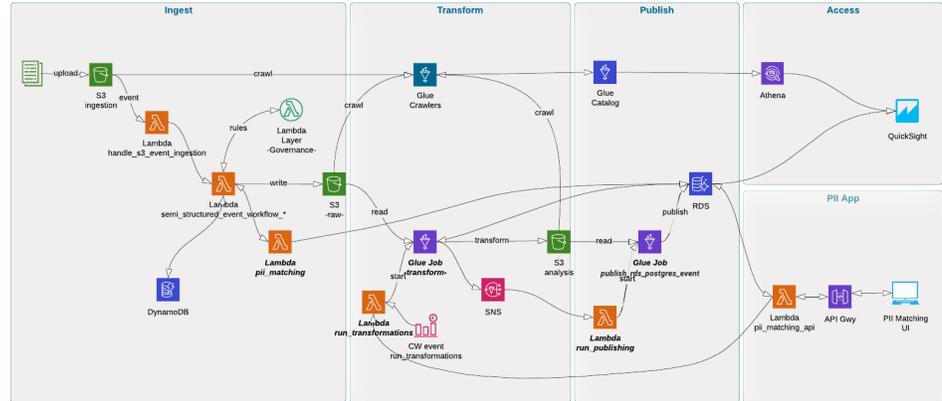

Kinect Theia is the answer to the complexity of building data platforms. In seconds, you can model your target architecture by simply selecting your use cases.

It includes: ingestion of relational, semi-structured and unstructured data; real-time replication and CDC (change data capture); event streaming; ETL/ELT; analytics; data cataloging; partitioning; governance; compliance; and data access.

Instead of developing and then automating various platform components one at a time, Theia collects use case information (metadata) and generates end-to-end, fully tested data pipeline workflow, ready to use code and full infrastructure automation.

The Outcome for the County's Human Services Department

The County's Human Services BI Platform is now a fully automated solution which automatically provides up to date information and analytics, with full visibility into individual citizen participation across all programs. The Information Technology team now has full access to Kinect Theia, providing the opportunity to efficiently implement new use cases as needed. Overall, the County's Human Services Department has vastly improved capabilities to efficiently match the right citizens to the right programs, elevating the overall value that the County delivers to its most vulnerable population.

About Kinect Consulting

Kinect Consulting is a cross-functional team of experts in all things (people, process, and technology) for the cloud. We are an AWS Advance, Public Sector and Well-Architected Partner with the agility of a startup, the support of a Fortune 100 parent company, and deep experience supporting complex enterprises to success in all aspects of their cloud journeys.

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Cloud CxO Service	Cloud Professional Services	Data & Analytics	Security & Compliance	Digital Performance	DevSecOps