



The World's Data AGGREGATION EXPERTS

 **MarkLogic**[®]

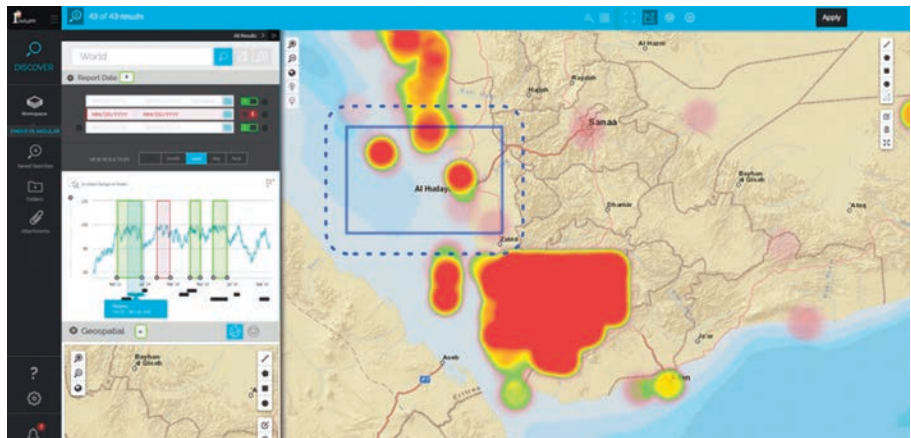


Geospatial Agency and Combatant Command Leverage Smart Data Discovery for Faster, More Flexible OBI

Meeting government-wide mandates for transforming agency systems and processes to become more agile and flexible is particularly challenging for defense and intelligence agencies. With so many teams of specialists studying different aspects of evolving situations, these agencies' data, discovery, and information fusion is, by nature, highly non-linear.

Agencies are moving toward cross-agency analytic modernization, increased collaboration, and Object-Based Intelligence (OBI) and Object-Based Production (OBP). OBP aims to increase information integration and create a common landing zone for data that crosses organizational and functional boundaries.

Rivium's smart data discovery platform is designed to integrate seamlessly with MarkLogic to make qualitative analysis faster, easier, and more complete. It allows non-technical subject-matter experts to easily discover relevant information in any format across the enterprise's data, then quickly identify items for deep analysis.



GEOINT: Faster, Better Analysis

At a geospatial agency, the ability to quickly produce complete geospatial analysis reports is crucial to day-to-day operations. The mission includes answering targeted, location-based inquiries that rely on terrain, demographic, and other data. Analysis reports are then shared across the enterprise.

The agency implemented MarkLogic and Rivium for a smart data discovery pilot to fully enable OBI and streamline mission-critical content. MarkLogic's enterprise security

ONE-OF-A-KIND

MarkLogic is a new-generation database that integrates data from silos to store, manage, and search all data without sacrificing any of the data resiliency and consistency features of last-generation relational databases.

"We are the world's experts at data aggregation," said Dave Fraser, Senior Sales Engineer, Intelligence Community. "We are the database, but we're also the indexing and search capability as well as the application services all bundled together."

As a multi-model database, MarkLogic can natively store multiple data formats without processing. MarkLogic's flexible schema lets organizations bring in new sources of information over time, without the need to adhere to strict, predefined schema requirements. This flexibility enables organizations to quickly ingest varied data without the need for ETL processes, making it a better choice for time-sensitive data integration projects even when all data is relational.

MarkLogic can transact with multiple data types, data sources, and databases, speeding the process to get value from the data and get it into the appropriate applications. For example, a GIS system is typically built on a relational database tailored to a specific task, said Fraser. "MarkLogic can interface with GIS systems through industry-standard APIs, pull that data into the MarkLogic repository and then aggregate data from multiple data sources to provide one clear view of what's going on."

and data management features and flexible data structure allowed the agency to consolidate all kinds of structured and unstructured data into one searchable database while reliably enforcing data policies and security settings.

The platform not only provides powerful faceted search across the entire enterprise and external systems, but also the ability to quickly visualize and filter data. Data views include geospatial, heat mapping, social network graphs, charts, tag clouds, and traditional tables. As analysts add notes, comments, and connections in the course of their own analysis, everyone in the agency benefits from the curated knowledge.

The newly integrated MarkLogic database and Rivium's data discovery platform helped agency users maximize their time on data-driven assessments and analyses to deliver faster, better insights for decision-makers.

Combatant Command Speeds Response to Rapidly Evolving Data

Understanding the rapidly changing dynamics of combat situations is one of the toughest intelligence challenges. Combatant commands continually monitor all kinds of networks—individuals, groups, governments, and organizations. Some networks are homogenous, but many are not. Some are located in close-knit communities, while others are dispersed across far-flung, transnational syndicates. Information about these networks can include

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strategic-level expertise, regardless of geographic location, or tactically oriented data about a location or subset of a network.

For combatant command analysts, the mission and networks are evolving constantly, often outpacing the time it takes to build network diagrams and search multiple data sources to discover new links and patterns. The slow process of manually building network maps, disambiguating names and entities, and searching disparate data sources to discover links and patterns hampered analysts' ability to respond quickly to developing situations.

Like the geospatial agency, the combatant command needed to expedite their current processes to deliver answers faster.

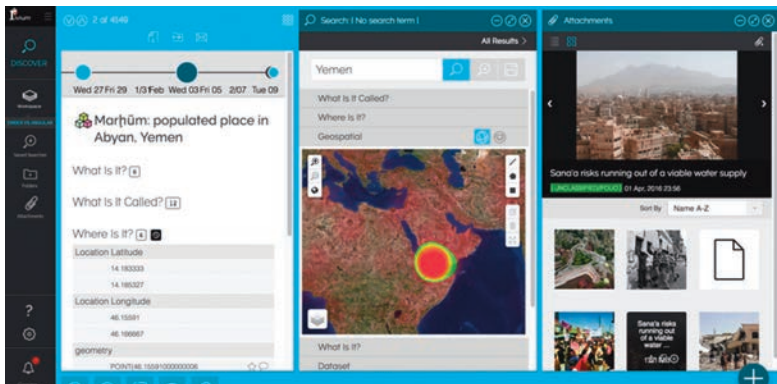
They turned to MarkLogic and Rivium for a better analysis solution. MarkLogic's Enterprise NoSQL database helped the agency consolidate access to their diverse datasets. Rivium made it faster and easier for analysts to search the data, identify network entities, and stay up to date on the latest knowledge.

Now teams can query all their databases of interest and return results in any data format in a customizable view that includes the identities of and links to other teams who have made similar searches. Object-based intelligence is easier since tags link people and places to other essential information, such as financial records, videos, and pictures that auto-populate in the structured summary product. The platform provides a near real-time picture of complex links between people, places, and things. The agency makes better use of its data and teams can collaborate more directly to save time and deliver better results. ■

MARKLOGIC + RIVIUM

The power of unstructured enterprise data and collaborative, smart-data discovery

- > Use all your data and find relevant items faster
- > Jump-start OBI and OBP adoption
- > Dramatically boost analyst productivity
- > Crowdsource knowledge enrichment
- > Automatically enforce data policies and security
- > Simple, native integration





THE WORLD IN CONTEXT

ONE OBJECT – ONE TIME

Securely manage, discover, share & enrich data in real time

The world's best database for integrating data from silos

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