

ISR Information Sharing

Today & Tomorrow

National Security and Public Safety organizations have relied on MarkLogic for over a decade to meet changing needs for Intelligence, Surveillance, and Reconnaissance (ISR) information sharing and exploitation. MarkLogic helps global customers transform their information architecture and data strategy – delivering consistent innovation and proven results. By choosing the right platform, our customers are able to leave behind the limitations of relational database management systems (RDBMS) and tackle the kinds of variable and volatile content they increasingly face.

MarkLogic ISR Solutions

The mission changes, collection methods and sensors change, and analytical tradecraft changes. But with MarkLogic, organizations can adapt easily – and avoid the all-too-common syndrome of “yesterday’s technology, paid for with today’s money, delivered tomorrow.”

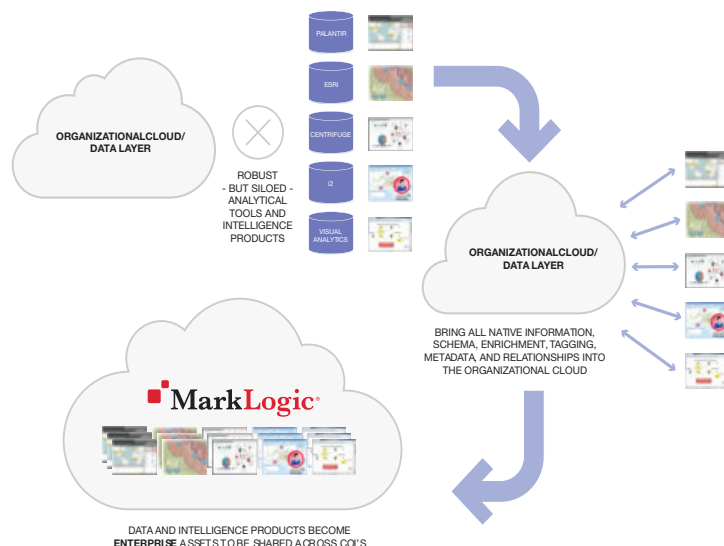
Metadata Catalog

In 2010, the US government reached out to MarkLogic to deliver a new Distributed Common Ground System (DCGS) Integrated Backbone (DIB) – a metadata catalog and federated search and retrieval solution to support ISR information discovery – and the MarkLogic solution became the only standards-based DIB to pass government functional conformance and performance testing. The MarkLogic DIB eliminated much of the bloated JAVA framework created for the legacy systems, has given the government a platform built for data ingest and high-concurrency querying and alerting, and reduces the engineering involved in incorporating evolving metadata standards like DDMS. DCGS systems built on MarkLogic have shown users what data they have been missing with legacy systems.

Enterprise Data Layer

The need to search, exploit, and relate information from sources outside of the DCGS systems – and analyze it in new ways – has led many National Security organizations to expand their use of the MarkLogic® Enterprise NoSQL platform to deliver Enterprise Data Layers to power even more robust information sharing services and applications.

A Data Layer or Data Hub provides organizations the ability to aggregate disparate data sources, index their metadata and text-rich content, and expose the content for search, exploitation, and analytics via industry standard RESTFUL web services and APIs. In the US DoD, this effort is embodied in the Defense Intelligence Information Environment (DI2E). Key MarkLogic data layer capabilities include enrichment, faceting, update, real-time indexing, collaboration and workspaces, versioning, alerting, content management, NATO ISR system and file interoperability, and flexible replication.





Beyond the Data Layer

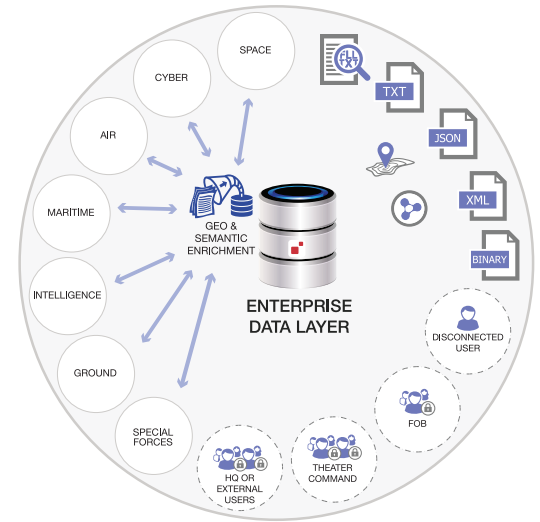
MarkLogic data layer solutions support the management, timeliness, scalability and performance, and reusability of the data created in any analytical tools. Two key capabilities built on the MarkLogic data layer architecture are our object management framework and detached operations capabilities.

Object-based Intelligence (OBI)

Government organizations around the world are realizing that in order to be able to drive collaboration but retain access control of content that could reveal sources and methods, they need to persist records or objects independent of the sources and finished reports or intelligence products they come from. The heart of this capability is the management of attribute-specific metadata for each object such as people, organizations, equipment, events, chronologies, places, and the structured observation of these. Built atop a data layer, the MarkLogic OBI framework has already been implemented at National Security and Public Safety organizations in three countries.

Mobile Operations

MarkLogic features a powerful replication capability to support users in delayed, intermittent, latent (DIL) communications environments. MarkLogic Mobile Operations solutions allow these users to bring their data with them, create new reports or observations and then when they can, replicate it back to HQ or other echelon to merge, and enrich reports and the entities or objects associated with them.



Conclusion

MarkLogic has over a decade of success helping Defense, Intelligence, and Public Safety organizations modernize how they share, exploit, and disseminate operational and analytical data. Today organizations around the world are building modern situational awareness, intelligence fusion, interagency information sharing, detached operations, and emergency management solutions on the MarkLogic Enterprise NoSQL database platform – the only enterprise-grade NoSQL database, cited by multiple industry analysts as a leader in the operational and NoSQL database markets. We and our partners are able to help customers harness big data in innovative ways to reduce non-recurring engineering and the operations and maintenance costs associated with the old way of designing, deploying and operating mission-critical systems.

About MarkLogic

For more than a decade, MarkLogic has delivered a powerful, agile, and trusted Enterprise NoSQL database platform that enables organizations to turn all data into valuable and actionable information. Organizations around the world rely on MarkLogic's enterprise-grade technology to power the new generation of information applications. MarkLogic is headquartered in Silicon Valley with offices in Boston, Chicago, Frankfurt, London, Manila, Munich, New York, Paris, Singapore, Stockholm, Sydney, Tokyo, Utrecht, and Washington D.C. For more information, please visit www.marklogic.com.

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