



Insurance Data Hub Quick Start Guide

Accelerating Your Data-Driven Transformation Efforts

QUICK START GUIDE · MARCH 2019

If you spend more time fighting your data than benefiting from it, you aren't alone. Enterprise data integration eats up 60 percent of a typical IT department's budget — buying hardware, expansive software stacks and burdensome maintenance.

MarkLogic's Insurance Data Hub Service allows you to integrate data more simply, using a cloud-based service that ingests, curates and serves up integrated data. MarkLogic can quickly and easily help you stand up an initial Data Hub in the cloud, so you can start realizing the benefits associated with a 360° view of your enterprise data.



Overview

In this guide, we will present you with a high-level plan and tools to successfully start executing data-driven transformation in just 45 days using the MarkLogic Insurance Data Hub (IDH). In part 1, we explore exactly why the MarkLogic IDH is such an effective platform for digital transformation for an insurance enterprise. In part 2, we provide a plan for a 45-day quick start engagement to get your enterprise on the path to digital transformation.

Part 1: Answering the Call of Insurance Enterprise Data

Your insurance enterprise needs digital transformation to keep pace with a rapidly changing industry. Digital transformation can help your enterprise in several key areas, primarily improving customer engagement, automating claims processing, and making underwriting more precise.

A MarkLogic IDH eliminates silos, unifies enterprise data, enables content re-use, and facilitates efficient content creation and delivery. Employing a data hub provides a 360° view of your enterprise data and is being used by MarkLogic insurance customers to accelerate application delivery, improve business insights, and generate operational efficiencies.

MarkLogic is available as an on-premises deployment or as a cloud-based service. The MarkLogic IDH allows you to execute digital transformation more simply, using a cloud-based service that ingests, curates and serves up integrated data. MarkLogic can quickly and easily help you stand up an initial Data Hub in the cloud.

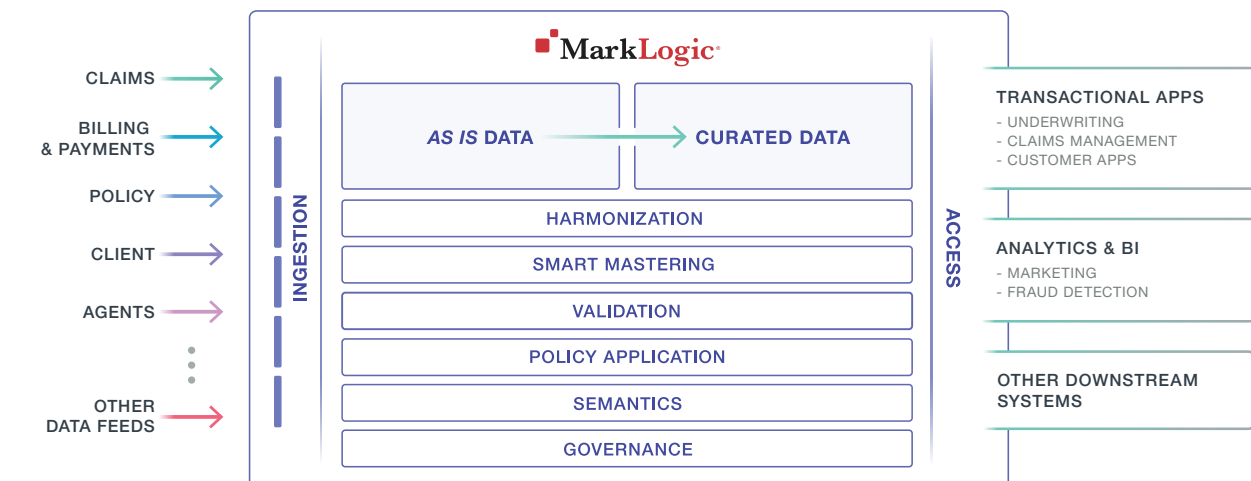
Digital Transformation Requires Access to Data

Getting access to all of the required data for digital transformation is a challenge for most insurers due to the siloed nature of IT infrastructure. This creates an inability to easily integrate data sources – both internal and external. The use of unstructured data sources for claims and underwriting applications continues to grow in importance. Integration of these sources enables insurers to develop new analytical capabilities and delivery channels. Today's customer requires insurance products and services that are better integrated and more personalized.

The difficulty in accessing and using the data to provide this experience is often caused by sub-optimal upstream data integration processes. The MarkLogic on-premises and cloud-based IDH brings your organization the most effective way to integrate data from silos.

“ MarkLogic’s agility, integrated search, and enterprise features allow us to deliver on a global scale to the most demanding customers. We have dramatically improved the customer experience and our clients’ ability to optimize their risk profiles.”

Jens Blohm, COO of the Life and Health Business Group, Hannover Re



The MarkLogic IDH Solution: A Foundational Data Management Platform for Insurers

MarkLogic addresses the need for digital transformation with a data hub that reaches across the insurance lifecycle, providing a real-time, enterprise-ready platform for the creation of next generation products and services. This data hub provides a single source of truth across all sources of data, content, and metadata, serving existing and future applications with a trusted source of record for key information.

MarkLogic's IDH provides a foundational data management platform that enables Insurers to more quickly achieve a unified, 360° view of their data – 5x faster than legacy relational databases and at less cost.

- Unlike other databases, MarkLogic is a multi-model database, handling data of any type from any source without modeling or transformation and making it immediately available at a base level.
- Data is then curated to create a harmonized, secure 360° view. The process is iterative and real-time, and provides immediate value from your data.
- Finally, MarkLogic provides a variety of industry standard APIs out-of-the-box that can be leveraged to deliver data for both transactional and analytical use cases.

“*Development time has dropped to hours and weeks, not weeks and months.*”

Brian Novacek, Senior Solutions Engineer, Erie Insurance

Flexible Like a Data Lake, Governed Like a Hub

Another approach—the data lake—also holds disparate data from many sources. However, they are not governed, not indexed, and not real-time. In contrast, the MarkLogic IDH solution is all of these things.

- **Data is governed:** Security and temporal tracking policy ensures your data is tracked and secure.
 - **Data is indexed:** Complex queries span structured data, unstructured text, geospatial data, graph data, semantic data and binary metadata.
 - **Data is real-time:** The environment can simultaneously ingest and serve thousands of API requests per second.
 - **Data is scalable:** Scale up and down quickly, transparently, and automatically to meet changing workload requirements.
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Cloud Transformation is Part of a Digital Transformation Strategy

When MarkLogic is deployed as a fully automated cloud-based service, it allows you to set up an IDH without any operational burden. This service is based on MarkLogic's existing, mature on-premises Data Hub offering and is an agile platform to integrate and curate data while also providing data governance and security. As a fully automated cloud service, it is effortless to run with no infrastructure to buy and manage.

MarkLogic's IDH cloud-based service goes beyond a mere Database-as-a-Service (DBaaS). You derive all of the same operational benefits, but are not just getting a raw database – you are getting a powerful, fully-configured data hub that lets you do more and do it more quickly.

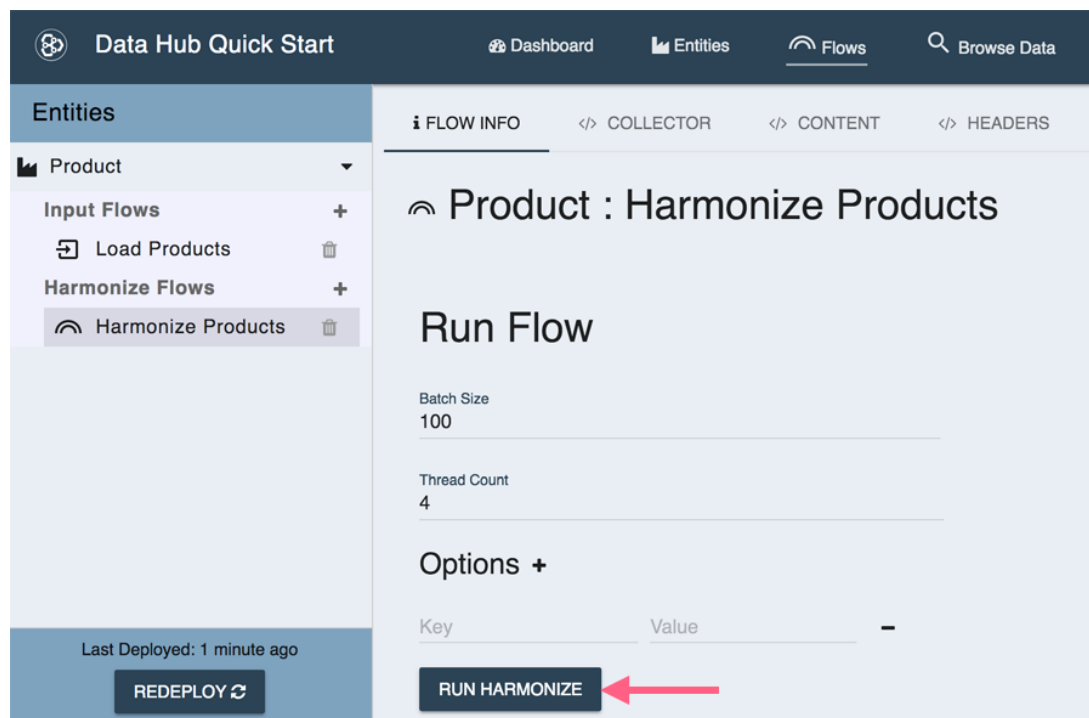
While workloads may vary from minute to minute, budgets do not. MarkLogic cloud-based IDH service automatically adjusts to varying data demand by transparently adding and removing cloud compute resources in seconds when loads change. Your data efforts will never be under- or over-provisioned.

Inside MarkLogic Insurance Data Hub Service

The IDH service captures and distills over a decade of technology and experience from MarkLogic to simplify data integration.

At core, all MarkLogic offerings use the MarkLogic Server database product. Wrapped around this is the mature Data Hub Framework, which MarkLogic uses to “integrate data from silos” on premise. This is MarkLogic's core business, so it includes best practices and new ideas derived from our work with hundreds of enterprise customers, including massive-scale, mission-critical systems.

Those familiar with the underlying Data Hub Framework will also be familiar with the running, configuration, and code extension graphical interfaces provided in the IDH service.



This screen capture from the Data Hub Framework illustrates the organization of flows for various entities on the left, and the operations, job tracking and transform step management on the right.

As with the Data Hub Framework, the cloud service organizes data into business “entities” and groups processes into “data flows” to keep your team organized and productive. MarkLogic IDH service also supports batch operations, exposes real-time ingest and output APIs. Unlike the on-premise Data Hub offerings, the cloud service handles common DevOps processes such as provisioning underlying compute and auto-scaling for you.

Part 2: 45 Days to an Insurance Data Hub

MarkLogic Consulting can accelerate your team's data integration project with a 45-day Quick Start engagement.

Our Quick Start engagement has four steps:

1. Identify High-value Data and Services

In our Quick Start engagement, we help you identify high-value data sources and services to satisfy a real need in your enterprise. This high-value, low-cost set of services is illustrated by the red box in this diagram.

By focusing on a few “quick wins” we find that the IDH service's approach can be validated early, giving fast feedback to stakeholders. By identifying the most important services stakeholders actually need, a value-driven focus is created to keep things on track and on schedule.

After a Quick Start proves the technology and educates the team, other services, exports and data sources are then brought into the Data Hub in the next iterations.



2. Scope and Plan the Initial Data Services

Step 1 produces important services. We then work backwards from those services to identify which data sources have the required inputs. From there, determine what data cleaning, curating, transforming and mastering processes are needed to turn that data (the raw material) into a working data service (the finished product). Additionally, this planning identifies any Personally Identifiable Information (PII) that will be included in the data set.

We apply our knowledge and expertise to design a strategy that fits the use cases and can be combined with your existing technical landscape.

3. Divide and Conquer

The IDH service toolkit we use decomposes the most difficult tasks into entities and data flows. The data inputs and data services outputs are now decomposed into specific tasks organized by entity and flow. Each entity will progress through well-defined steps to be sufficiently curated to serve the required data service.

Notice that “extensive data modeling” is NOT on this list. Minimal, agile, “just-in-time” modeling is performed to get the services working. An agile process can later refine and extend these models, but most data can be stored, queried and transformed “as-is” depending on business needs. Pull in all your data “as-is” first, and evolve later – Agile modeling saves time and reduces risk.

4. Implement Each Entity Flow as a Series of Plugins

After those first three steps, you now know the key requirements, and have a breakdown of the work into data flows. Next, these data flows are planned, scheduled and divided up among the implementation team.

With the turn-key solution that the IDH cloud service offers, we don't have to wait on hardware provisioning, entitlements to perform installations, configuring OS or network. We can hit the ground running, realizing quick wins to impress the stakeholders.

MarkLogic Consulting typically leads this initial 45-day effort with your staff involved and learning to do the work "on the job" so they are ready to take over for future deliveries.

If a cloud service isn't right for you, you will still be able to run MarkLogic in any environment (on-premises, hybrid, public cloud). All of these deployment options share the same proven enterprise capabilities of MarkLogic, and our consultants can guide you within this effort.

Why MarkLogic Consulting

The MarkLogic Consulting Services team are experts who focus on data integration – all day, every day. We have insight into common challenges and their solutions for some of the largest and most complex insurance organizations across the world. From change data capture to DevOps, team structure, cloud migration and performance tuning – we have relevant experience and methodologies needed to smooth the path forward and make your effort successful.

In addition to standing up a system quickly, we aim to build required skills in your own team. Even the best team of data and systems professionals may need a little while to get their heads around new, agile, MarkLogic approaches – where you can ingest data without modeling it first, drive agility down to the very core of the data integration effort, switch from data-first (and modeling focused) integration to data services based development.

There simply isn't time for a completely new group to think all this through, adapt to a new paradigm, and develop an impressive system in 45 days.

MarkLogic Consulting have individually and collectively gathered skills and best practices from earlier projects, and look forward to supporting you on your initiative.

Contact Us

Contact us at consulting@marklogic.com to learn more and find out how an IDH quick start engagement can help you accelerate data-driven digital transformation across your enterprise.

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