Modernizing Analytics with Ignite: A Unified Data and Analytics Ecosystem at Health Catalyst

RESULTS

» **20 percent increase** in analytics capacity.

» **38 percent reduction** in storage and compute costs, the result of data optimization.

PRODUCTS

» **Health Catalyst Ignite™ Data and Analytics**

EXECUTIVE SUMMARY

In a rapidly evolving healthcare landscape, organizations are transitioning to modern data and analytics ecosystems to enhance efficiency and improve decision-making. Health Catalyst recognized that its internal analytics team was facing challenges common to many healthcare organizations: fragmented workflows, computational inefficiencies, and delays in delivering insights. To address this, it deployed Health Catalyst Ignite™ Data and Analytics, a unified data and analytics platform to replace legacy tools. This modernization eliminated reliance on outdated tools, streamlined workflows, and enabled AI integration across the data lifecycle—reducing costs, accelerating insights, and allowing analysts to focus on high-value work.

EVOLVING HEALTHCARE DEMANDS A SCALABLE DATA AND ANALYTICS ECOSYSTEM

In a healthcare environment characterized by financial pressure, operational complexity, and the urgent need for insight, healthcare improvement organizations are migrating to dynamic, next-generation data and analytics ecosystems to enhance decision-making, gain faster insights, and maximize investment.

LEGACY TOOLS SLOWED INSIGHTS AND INCREASED COSTS

Health Catalyst found its internal corporate analytics team facing the same challenges it helps healthcare organizations solve: fragmented workflows, computational inefficiencies, and delays in time-to-insight.

The analytics team was responsible for delivering critical insights to stakeholders across research and development, operations, sales and marketing, finance, and human resources, but their data management tools and functions, data products, and self-service tools applications weren't keeping pace with the organization's growing needs and demands.

Corporate analytics team members relied on numerous tools, multiple ETL processes, and external scripts to stage data. Each analytic job required juggling disparate systems to design and load staging tables before ingestion, which slowed the generation of insights.

In a climate where cost optimization and speed-to-insight are strategic imperatives, Health Catalyst needed more than incremental improvement. It required a modern analytics foundation that could support scale, reduce overhead costs, and integrate AI capabilities natively without requiring additional personnel or tools.

A UNIFIED DATA AND ANALYTICS ECOSYSTEM FOR THE ENTIRE DATA LIFECYCLE

To modernize its internal analytics infrastructure, Health Catalyst deployed Ignite, its next-generation data and analytics ecosystem. This shift marked a significant evolution as the organization moved from a multi-tool, manually orchestrated workflow to a single, unified platform where all data engineering, transformation, and analytics can occur in one place.

Ignite eliminated the need for external job schedulers and redundant staging steps. In the previous environment, producing a usable dataset involved numerous actions across multiple tools. Now, all data ingestion, transformation, scheduling, and staging occur within the analytics platform, eliminating the need for separate job orchestration. Another impactful change is how Ignite handles schema drift—the gradual or unexpected change in a data source's structure over time. In the old world, when source systems changed fields, the analytics team had to manually identify and update downstream tables, a time-consuming, error-prone process. Now, Ignite automatically detects schema changes, logs them with timestamps, and makes the necessary adjustments.

The streamlined processes decreased complexity and the number of touchpoints and dependencies, allowing analysts to spend more time generating value and less time maintaining pipelines.

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> *Ignite has allowed us to shift from maintaining pipelines to maximizing value. Now, our analysts can focus on insight, not orchestration.*
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> Brian Eliason, MIS, Senior Vice President Corporate Analytics and Strategic Vendor Partnerships, Health Catalyst

OPERATIONAL EFFICIENCY MEETS AI-ENABLED INSIGHTS

The Ignite architecture also improves compute performance and cost control. With Ignite, compute usage is fully visible and adjustable. Teams can allocate compute budgets, monitor usage in real-time, and scale resources deliberately.

Ignite introduced built-in observability and intelligent alerting, enabling the analytics team to detect issues proactively and respond faster. Instead of simply monitoring for job success or failure, teams can now define custom thresholds and rules based on what truly matters to their pipelines:

- Were the data delayed or processed on time?
- Did it take longer than expected to complete?
- Did it return too few or too many rows compared to historical norms?
- Was the data freshness or volume outside the expected range?

Teams can customize both alert conditions and the delivery methods. Alerts can be sent via email, the ticketing system, or instant messaging platforms, depending on what will prompt the fastest, most effective response. For example, instant messages may be ideal for engineering teams actively managing jobs in real time, while a ticket could trigger deeper investigation and documentation.

Ignite's native support for AI and machine learning enables teams to apply predictive algorithms directly within their workflows. Rather than treating AI as an experimental overlay, Health Catalyst is embedding it directly into the data lifecycle, positioning the organization to act on insights as they emerge. Use cases in development include using engagement and project management data to predict if projects will be completed on time, enabling interventions for projects that may not be on time, and combining usage and engagement data to identify an overall client health score—key to client retention efforts.

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> *What used to be a multi-step, multi-tool process is now streamlined into a single, intelligent platform—we're saving time, compute, and sanity.*
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> Dave Ross, BSIS, Chief Technology Officer, Health Catalyst

Ignite supports strong data governance, rapid query performance, and trustworthy lineage across all pipelines. Observability is built in, providing complete visibility into job performance and error tracking, allowing the team to proactively manage workloads with confidence.

RESULTS

Shifting to Ignite has transformed internal analytics at Health Catalyst. What was once a costly, multi-tool chore is now a swift, in-platform process that delivers deeper insights faster.

With streamlined pipelines, reduced compute usage, and embedded AI capabilities, Health Catalyst empowers its analytics team to deliver real-time insights with cost transparency and operational precision and enables self-service analytics. Results include:

>> **38 percent reduction in storage and compute costs, the result of data optimization.**

>> **20 percent increase in analytics capacity. Analysts can now spend more time analyzing data rather than preparing data.**

>> **An estimated ten percent improvement in data processing times. Job run times have decreased significantly, with workflows completing in a fraction of the time required under the previous system. This acceleration has enabled faster access to insights, allowing teams across the organization to make better decisions sooner.**

WHAT'S NEXT

With a modern data and analytics ecosystem, Health Catalyst is poised to accelerate innovation further and scale the impact of analytics across the organization.

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> *With Ignite, we're able to visualize data faster. It's enabling us to make confident decisions in real-time instead of waiting days for answers.*
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> Ryan Barry, PMP, CSM, Senior Vice President and General Manager of Services, Health Catalyst

ABOUT HEALTH CATALYST

Health Catalyst is a leading provider of data and analytics technology and services that ignite smarter healthcare, lighting the path to measurable clinical, financial, and operational improvement. More than 1,000 organizations worldwide rely on Health Catalyst's offerings, including our cloud-based technology ecosystem Health Catalyst Ignite™, AI-enabled data and analytics solutions, and expert services to drive meaningful outcomes across hundreds of millions of patient records. Powered by high-value data, standardized measures and registries, and deep healthcare domain expertise, Ignite helps organizations transform complex information into actionable insights. Backed by a multi-decade mission and a proven track record of delivering billions of dollars in measurable results, Health Catalyst continues to serve as the catalyst for massive, measurable, data-informed healthcare improvement and innovation.

Learn more at www.healthcatalyst.com, and follow us on X, LinkedIn, and Facebook.