The **DOS platform** combines features of data warehousing, clinical data repositories, and health information exchanges (HIEs) to integrate real-time, granular data into a single computing ecosystem. DOS is vendor-agnostic, unlocking data trapped in diverse information systems that previously could not communicate with each other and separately lack the functionality needed to yield analytical insights.

The Health Catalyst Data Operating System unlocks your source data and serves it up to a host of analytics apps.

**The problem**

Enterprise data is locked in many systems and sources, and it needs to be combined before insights can be derived. Electronic health records (EHRs), enterprise resource planning (ERP) systems, enterprise data warehouses (EDWs), and some forms of health information exchange (HIE) are the dominant data collection systems in healthcare today, accompanied by innumerable smaller systems for registrations, scheduling, counter billing, and other transaction-based workflows. Together, these proprietary source systems make up a complicated, expensive monolith that locks data away.

The current answer to the healthcare analytics problem relies on vendor or homegrown data warehouses, but these lack the flexibility needed for the breadth of analytic questions healthcare users need to answer. They focus narrowly on limited datasets, lack real-time feed functionality, machine learning, and text analytics. What's more, they don't scale.
Our approach

DOS leverages healthcare data locked in expensive, tightly coupled transaction systems and combines and standardizes it, providing real-time streaming and low-latency processing to provide analytics soon after events are recorded. DOS is easily upgradable, scalable, and extensible, allowing analysts to build data-first analytic applications fast in response to the demands of a changing healthcare business landscape.

Benefits and features

• Ingest and combine terabytes of data from multiple sources with the Flash Data Engine – The first data engine built from the ground up for healthcare's unique data needs, the Flash Data Engine provides built-in AI features and extensibility via custom plugins to import data from non-SQL sources and export it to non-supported destinations.

• Design custom solutions, or enhance existing solutions, with open-source RESTful APIs – Open and extensible APIs enable you to build your own DOS applications over a standard but extensible data model or use third-party applications to customize and enhance your DOS.

• Security and access management - A data security and authorization subsystem controls access to the platform's data marts, system configuration tables, and management applications.

• Integrate native AI and machine learning into existing data pipelines – DOS lets you easily integrate machine learning into existing data pipelines and provides AI pipelines and AI models so you can create the right insights.

• Create a services-based architecture – Leverage cloud-based microservices presented as simple-to-use and manage web applications.

• Host data in Microsoft Azure - Client data centers in Microsoft Azure are secured with Microsoft's HITRUST foundation.

• Automate and scale data governance – DOS ensures healthcare leaders and clinicians have access to consistent, quality data to help them make better decisions. Together they use the tool to collaborate and create standard definitions.

Use cases

• IT leaders can meet the increasing organizational demands for deep data and predictive analytics without having to build huge infrastructures.

• Clinical leaders get real-time insights using all of the patient's data without leaving their workflow.

• Population health leaders now have access to deep data—claims, clinical, costing, and socioeconomic—across the entire care continuum.

• Financial leaders now have access to deep data—clinical, costing, and operational—across their entire care delivery system to thrive in a world of decreasing revenue and increasing risk contracts.

• Health system leaders no longer have to rip and replace expensive technologies to get the deep data they need to take action.

• Independent software vendors can eliminate the frustration of waiting for access to clinical data and the insurmountable task of getting their tools integrated into clinical workflows.

Success stories

For examples of how customers have used Health Catalyst products and services to improve outcomes, visit https://www.healthcatalyst.com/knowledge-center/success-stories/

Contact us

For more information on how Health Catalyst products and services can help your organization, please contact us:

• Reach out to your sales representative
• Call us at (855) 309-6800
• Email us at info@healthcatalyst.com

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