



# Overview for Healthcare

## Why We Exist

Glassbeam is at the forefront of the Industrial IoT revolution helping leading product manufacturers and operators make sense of complex machine data. Connected machines have resulted in copious amounts of data that is generated with unprecedented velocity and variety. However, numerous economic studies have shown that the true value of this data can only be realized through sophisticated data transformation and rule based algorithms before applying any meaningful business context. Glassbeam was launched in 2014 to fulfill this core mission. Our solution portfolio powers analytics that has resulted in numerous economic benefits for our customers – reducing support costs, uncovering sales opportunities, building higher quality products and significantly increasing customer satisfaction.

## What Differentiates Us

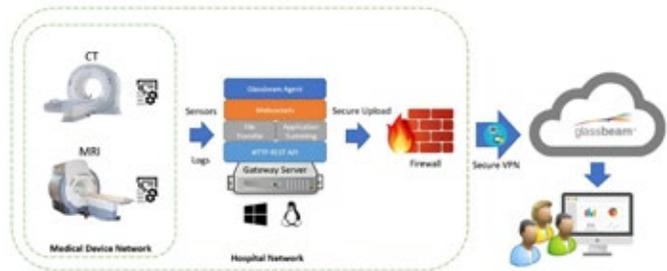
Glassbeam has innovated a simplified approach to a complex IoT big data problem by inventing a patentable language called SPL (Semiotic Parsing Language). SPL drives a 10x efficiency in the data transformation process by allowing a solutions engineer to perform the same work in a week or less as is done in 6 months by a team of database and system engineers. The company has filed patent applications in this area. Besides SPL, Glassbeam has invented a real time streaming platform called SCALAR, that can convert complex machine logs into actionable output using a complex rules engine, machine learning Apache Spark, and the latest innovation with a tool called Glassbeam Studio that allows rapid data modeling on complex log files. Core platform is coded in SCALA with a backend data store in Cassandra & Solr Cloud, all tightly engineered for hyper scalability, multitenancy, and security.

## Glassbeam for the Healthcare Market

Glassbeam is a leading platform for analyzing complex machine logs generated from medical devices. Multiple manufacturers, health care providers, and ISOs are either using or evaluating Glassbeam for increasing machine uptime, tracking asset utilization, reducing service cost, and increasing operator productivity. Key components of Glassbeam’s solution for the Healthcare market include:

### Glassbeam CLEAN™ Blueprint (Clinical Engineering Analytics)

Glassbeam CLEAN™ is an end-to-end analytics solution (data collection, data transformation, and data analytics), which focuses on machine data in a Clinical engineering environment.



### Fleet Management and Utilization

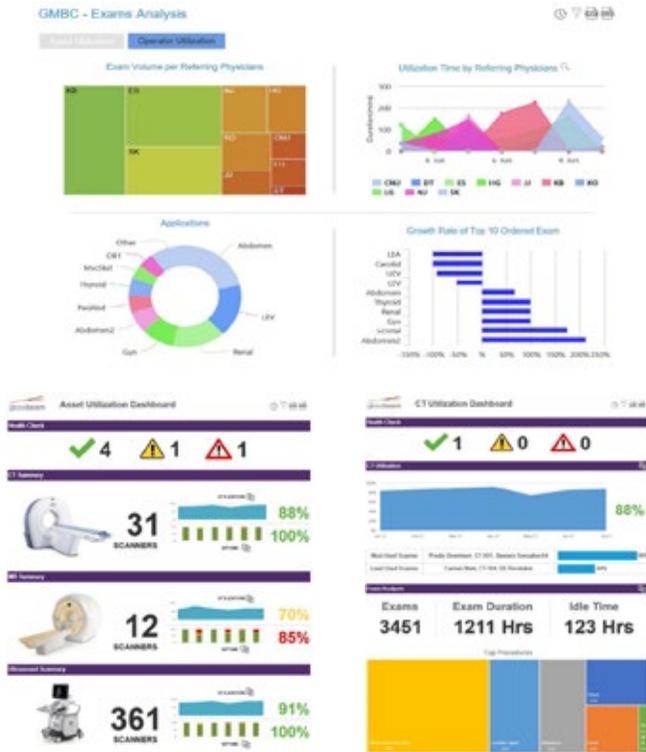
Enables users to track asset utilization across the entire fleet and break down asset utilization by the number of procedures, types of procedures, procedure duration, uptime and idle time.

### Operator Utilization and Process Optimization

View aggregated time taken per procedure type per operator to find gaps in training and effective machine utilization.

## System Health Dashboard

Enables service engineers to remotely monitor and set thresholds on key machine parameters such as helium level, magnet pressure, cold head temperature, compressor off time, tube arcs and abort on a per machine basis.



## Key Benefits for the Healthcare Market

### Faster Time to Market and Value

Our biggest differentiation is speed, nimbleness, and an ability to partner, both on the business and technical front, to create solutions that we can jointly launch in the market in a few weeks (as opposed to months or years).

### Multi Modality, Multi Manufacturer Enterprise Services

Healthcare providers are looking for an integrated view across their fleet. Glassbeam's strength in structuring complex data aligns well for analyzing logs from all modalities and manufacturers to provide a unified view.

### Build New Solutions by Embedding Glassbeam Modules

Glassbeam platform is an open and industry proven "data transformation and complex rules engine" that can plug into any home grown apps, leveraging our open architecture with APIs and Kafka message bus architecture.

## Customers

Glassbeam works with the world's leading product manufacturers and operators across verticals to help glean value from their machine data. Prominent customers include:

- Novant Health (Healthcare Provider)
- Sound Imaging (Healthcare ISO)
- IBM (Storage Systems)
- Dell EMC (Converged Infrastructure)
- Cisco (Hyperconverged Infrastructure)
- Dimension Data (Data Center)

## Partners

Glassbeam is partnering with numerous partners in the IOT infrastructure space that collect, transport and store machine data; and also with companies that help in the visualization of data. Partners include:

- ThingWorx (a division of PTC)
- Salesforce.com
- Tableau Software
- Amazon Web Services
- Dimension Data (a NTT company)

## Business Impact and ROI

Glassbeam's customers accrue impressive ROI both from increased revenues, reduced support costs and increased customer satisfaction. Examples include:

- Healthcare Provider:** Improving equipment SLA for MRI and CT Scan from 97% to 99.9% uptime resulting in \$6.5M recovered rev/year; \$900K opex savings per year by proactive failure analysis on Cryogen levels in MRI and Tube replacement in CT Scanners.
- Fortune 50 Technology firm:** ROI of \$7.5 million borne out of headcount savings of 30 TSRs and new upsell opportunities.
- Fortune 500 Medical Devices firm:** ROI of \$3.0 million from a 90% reduction in time taken to aggregate and search through logs.