



Glassbeam Solution for the Imaging Market

Healthcare Industry Challenges

Declining reimbursement rates are forcing healthcare providers to become more efficient and cut costs. One key area to optimize costs is transitioning from reactive to proactive service/maintenance of medical devices. Connecting these devices for real-time monitoring and continuous analysis is a key enabler for proactive support/maintenance. For imaging machines like CTs and MRIs, current monitoring and analytics solutions offered in the market are expensive and inadequate. Glassbeam's Solution for Imaging Modalities disrupts this by offering advanced analytics based on machine logs, powered by rules, Artificial Intelligence (AI) and Machine Learning (ML) algorithms, providing richer and in-depth analytics to increase uptime and asset utilization.

Today, imaging equipment like MRIs suffer 8-15 downtime events per year on average, and downtime per event is typically 6+ hours. This represents hundreds of thousands of dollars in lost revenue that healthcare providers can ill afford. What if powerful analytics could solve all this comprehensively? That solution exists today.

Glassbeam Solution for the Imaging Market

For a healthcare provider, imaging modalities such as CTs and MRIs are the biggest contributor to service costs. Glassbeam's solution for the imaging market is built using Glassbeam platform's unique capability to process disparate data sources and apply advanced analytics powered by AI and ML. It addresses expensive and inadequate performance monitoring by lowering costs and offering deeper analytics to increase uptime and utilization. Multiple manufacturers, health care providers, and ISOs are either using or evaluating the Glassbeam solution. Key components of Glassbeam's solution include:

Remote Monitoring

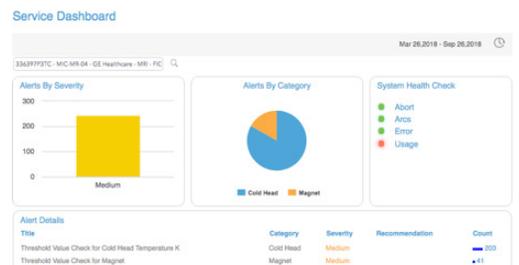
Uses Glassbeam's CLEAN™ (Clinical Engineering Analytics) blueprint for connecting systems from all key manufacturers including GE, Siemens, and Philips. Data is collected on 30+ key readings including cryogen levels, cold head temperature, magnet pressure and scan counts, aborts, and arcs for MRI and CT modalities, respectively.

Real-time Environmentals Monitoring

Provides dashboard and/or alerts to monitor Compressor Power, Room temp/humidity, and Chiller water temp In/Out. Additional sensors could be added based on customer needs especially to monitor mobile units in remote locations.

System Health Dashboard

Enables service engineers to define complex rules on historical and current machine logs to identify issues signatures. Plots historical trends and resolution steps based on knowledge base for issues detected in machine logs. Summarizes analysis to help service engineers decrease time to issue resolution.



Predictive Maintenance

Deploys Machine Learning (ML) and Artificial Intelligence (AI) models based on historical data to predict future part failures, including CT tube failures, to minimize unplanned downtime. Applies anomaly detection to identify early warning trends.

DICOM Integration

Combines DICOM data with machine data to enhance asset utilization across the entire fleet and break down utilization by System Utilization, Physician Referrals, and Patient Revisits.

Real-time Service KPI Dashboard via CMMS Integration

Eliminates manual effort and provides continuous measure for service team performance KPI including Mean Time Between Failure (MTBF), Parts Replacement Rates, First Time Fix Rate (FTFR), and Mean Time to Resolve (MTTR). Combining CMMS data with machine logs provides more accurate information on these KPIs.



Operator Utilization and Process Optimization

Analyzes how operators have used scanners including most common procedures, idle time between exams, and time taken for exams. Helps identify the need for additional training.

Key Benefits for Healthcare Providers

Increased Uptime

Only solution that combines advanced analytics on historical data in addition to real-time monitoring. Predictive/proactive maintenance by leveraging ML and AI models results in decreasing unplanned downtime.

Optimal Utilization

Correlates DICOM data with machine logs to create a true picture of utilization, for example, identifying discrepancies between # of Series/Sequences Sent vs # of Series/Sequences Actually Acquired.

Multi Modality Multi Manufacturer Enterprise Services

Provides an integrated view across the healthcare provider's equipment fleet. Structures and analyzes all complex data to facilitate analyzing logs from all modalities and manufacturers to provide a unified view.

Enhanced Operator Productivity and Patient Care

Benchmarking and cohort analysis for designing better training and processes maximizes productivity and patient care.

Data Driven Capital Expenditure Decision

Real-time information on utilization augments decisions to procure right machines at the right time.

About Glassbeam

Glassbeam is the premier machine data analytics company bringing structure and meaning to complex data generated from any connected machine in the Industrial IoT industry. Glassbeam's next generation cloud-based platform is designed to transform, analyze, and build Artificial Intelligence applications from multi-structured logs, for proactive/predictive maintenance and is deployed at many customers including leading Healthcare providers, ISOs and OEMs.



2350 Mission College Blvd.
Suite 777
Santa Clara, CA 95054

(408) 740-4600

info@glassbeam.com

www.glassbeam.com