



Manufacturing Nerve Centre

Challenges

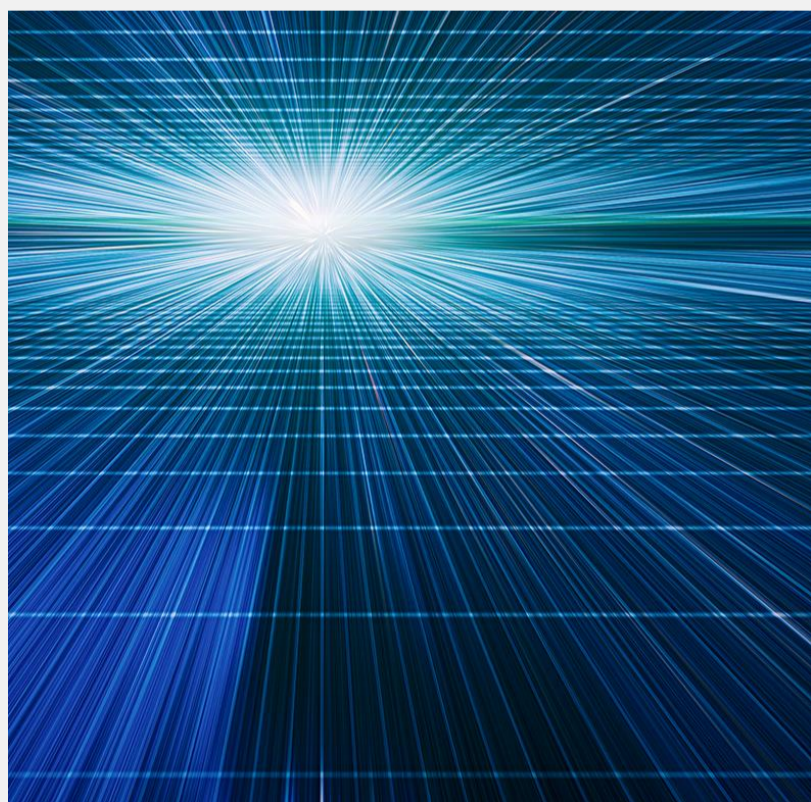
Unable to optimize daily manufacturing operations while managing risk and increasing efficiency

- For global manufacturing units, real-time visibility across enterprise 2 enterprise (e2e) manufacturing operations, real-time nudges, and cross-functional data accessibility became prerequisites to enable decision support
- Inefficient manufacturing operations, cross-functional integration, and lack of predictability directly affect the plant performance
- Transforming large datasets into actionable insights through a centralized platform where data integration with an existing framework with high data quality and reliability is needed

Fractal's Manufacturing Nerve Centre

Enabling cognitive and autonomous decision making for synchronized operations

- Provides insights for actionability through Control Tower at various execution levels
- Enables effective decision-making with deep siloed functions.
- Provides prescriptive and predictive recommendations with intelligent algorithms and automated controls



Benefits

Integrated Quality, Maintenance, Environment, Social, Governance, Production, and support functions drive operational and business performance with minimal human intervention.

»» Digital Enablement

- Enhanced visibility through control tower to transform offline and siloed decision making to intelligent and cross functional integrated decision making
- Robust system with automated data pipelines for real-time data gathering, information sharing and connected machines to enable data exchange

»» Diagnose and Predict

- Deep dive into the production metrics / KPIs to deliver value through root cause analysis and on-demand scenarios
- Predictive-based analytical algorithms for effective decision making in Quality, Maintenance, and Inventory management

»» Automate and Recommend

- Automated controls and human-machine integration work together to translate decisions into actions on underlying systems.
- Recommendations based on Prescriptive and Cognitive AI / ML intelligent algorithms

Fractal Analytics on AWS

Fractal's Manufacturing Nerve Centre powered by AWS Advanced Analytics services allows organizations to manage daily manufacturing operations while managing risk and boosting efficiency by creating a single source of truth. Advanced computer vision service offered by Amazon Web Services enables Fractal's Manufacturing Nerve Centre to monitor events in real-time and provide actionable insights.



**Generating executive insights across manufacturing
and operations KPIs for a leading Manufacturing firm**

»» Challenges

Client had different reporting structure across two regions and multiple manufacturing sites making it difficult for leadership and plant team to get end-to-end visibility, which leads to poor decision support for business KPI

»» Solution

- Intelligent alerts for quick tracking and in process deviation
- Real-time automated dashboard for multiple user personas
- Encompassed key manufacturing functions: Safety, Quality, Delivery, Cost and Sustainability

»» Results

- End to End visibility to leadership and plant team
- Real-time monitoring of critical parameters to enable the team to take data-driven decisions
- Actionable insights and recommendations to operators, planners and managers



Features

Synchronized Insights

Amazon SageMaker plays a crucial role in creating synchronized insights from multiple reports by providing efficient data integration, powerful machine learning algorithms, scalable infrastructure, and intuitive visualization capabilities. By leveraging SageMaker's capabilities, Fractal uncovered valuable patterns, correlations, and trends across different reports, leading to enhanced decision-making and improved business outcomes.

Remote Monitoring and Feedback

Fractal Manufacturing Nerve Centre identifies deviations from planned operations and determines process variations and anomaly thresholds. This proactive monitoring helps ensure the timely identification of critical events and enables swift response measures to be taken remotely. Amazon Rekognition also provides a range of APIs and SDKs, enabling developers to integrate its capabilities into custom applications or workflows. This flexibility allows us to tailor the remote monitoring and feedback system to their specific needs and leverage the power of Amazon Rekognition's computer vision capabilities.



**Get started with Fractal Analytics solutions
on AWS**

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- Amazon RDS Ready
- Retail Software Competency
- Financial Software Competency
- Data & Analytics Software Competency