

3D Systems delivers uptime & operational excellence with IoT and ServiceMax



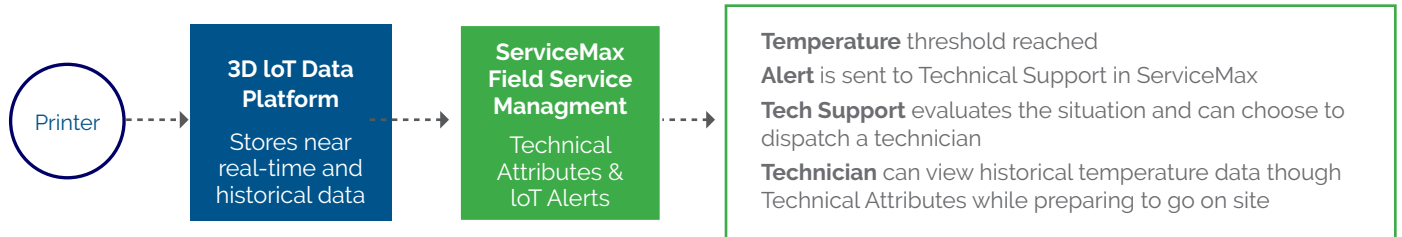
For over 35 years, 3D Systems has been delivering additive manufacturing solutions comprising hardware, software, materials and services that allow companies to optimize their designs, transform their workflows, bring innovative products to market, and drive new business models.

To serve growing markets like healthcare, aerospace and defense, transportation, and motorsports that are in need of highly reliable products, 3D Systems has turned to an IoT strategy connected to ServiceMax's field service management platform, allowing 3D Systems to proactively drive uptime, empower engineers on the job, and resolve customer issues much more quickly.

Enabling asset-centric field service with IoT

The interconnectivity of devices through sensors and other technologies enables 3D Systems to proactively monitor and service its fleet of printers by leveraging ServiceMax's IoT Alerts and Technical Attributes features. This approach has helped 3D Systems provide better customer service by fixing potential machine failures as swiftly as possible, before unplanned downtime occurs.

If a temperature sensor, for example, exceeds a threshold, a monitoring system fires off an alert to the technical support team who can then solve the problem remotely based on field data or dispatch a technician to the site.



“Since we introduced ServiceMax to our workflow, IoT Alerts has helped us prevent costly machine-down events when excessive temperatures indicated a clogged filter. A proactive call from Technical Support meant the customer could replace the filter mid-build thus avoiding a failed print job and wasted time and material,” said Amber Porter, PhD, Manager of Data Analytics at 3D Systems. “Once, we even discovered the customer’s air conditioning system malfunctioned before they were aware of the issue which meant the print quality of the multi-hour job that was in progress was in jeopardy.”

ServiceMax’s Technical Attributes feature at work

The Technical Attributes feature enables companies to capture, store, and analyze rich IoT data for specific products, product lines, and product families. As an asset evolves based on usage, so do the attributes that are being monitored. Customers can analyze the data stored in ServiceMax’s Technical Attributes to trigger service actions based on the device performance, the working condition of the asset, and the usage pattern.



Since we introduced ServiceMax to our workflow, IoT Alerts has helped us prevent costly machine down events when excessive temperatures indicated a clogged filter. A proactive call from Technical Support meant the customer could replace the filter mid-build thus avoiding a failed print job and wasted time and material.”

Amber Porter, PhD, Manager of Data Analytics, 3D Systems

Operational information such as the number of builds and type of material consumed is securely collected on 3D Systems' printers. When this data is stored as attributes, 3D Systems' technicians can access the history as needed and develop a recommended service action plan which may include ordering parts prior to visiting the customer site.

Technical Attributes also help develop targeted communication with 3D Systems' customers such as recommendations for newly released software updates or materials.

Eventually, IoT will help 3D Systems go even further to improve their customers' print quality and uptime. The future for 3D Systems and their customers is one supported by intelligent preventive maintenance using AI-enabled IoT services and smart machines with decision-making capabilities.

"Our goal is to become predictive with the data. We want to use IoT to enhance the service experience, help customers drive more value from their systems by improving print quality and uptime, all while reducing our organization's cost to serve," said Amber Porter.



Our goal is to become predictive with the data. We want to use IoT to enhance the service experience, help customers drive more value from their systems by improving print quality and uptime, all while reducing our organization's cost to serve."

Amber Porter, PhD, Manager of Data Analytics, 3D Systems

>> Customer Quick Facts

INDUSTRY:
Additive Manufacturing
Solutions Provider

SIZE:
2,000+ employees

HEADQUARTERS:
Rock Hill, South Carolina

WEBSITE:
www.3dsystems.com