SAS® Analytics for IoT

Get more value from the connected world by fusing analytics and AI with IoT data

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THE POWER TO KNOW®

Key Benefits

With SAS Analytics for IoT, you can:

- **Reduce cost and increase efficiency** by collecting, managing and analyzing data where it lives. SAS lets you integrate, transform, analyze and visualize IoT data across the ecosystem – edge devices, gateways and data centers, in the fog or the cloud.

- **Boost productivity of your data analytics teams** by enabling developers and partners to build and expand upon sophisticated models to get highly accurate results – using a single, collaborative environment.

- **Respond quickly and confidently to changing conditions, and claim new IoT market opportunities** as you tap into the full potential of all your data to make better-informed business decisions.

- **Skip complexity** when you streamline and automate processes across your IoT infrastructure for incremental and long-term business gains.

Overview

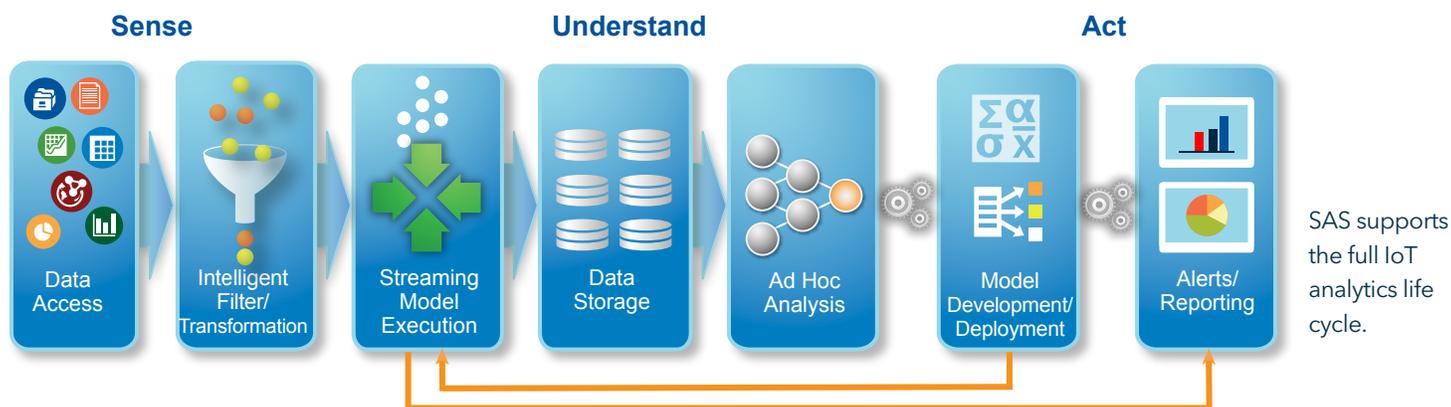From cars to factories to farms, many organizations are already collecting information from the connected devices that send and receive data over IoT networks. While analysts expect the IoT to soar to tens of billions of devices by 2020, no one knows how many or what new types of intelligent devices will emerge. But we do know that traditional approaches to data management and analytics may not be sufficient for sustaining value in this new, connected world.

Simply collecting data from connected sensors, systems or products is not enough. To benefit from the promise of IoT data, businesses need to be able to shift analytics from traditional data centers toward devices on the edge – the "things." Challenges arise from a growing data scientist skills gap and the complexity – and risks – inherent in capturing and analyzing extreme volumes and varieties of the data torrents flowing from ever-increasing numbers of things.

Today's businesses need a flexible, integrated environment to access, prepare, visualize, model and deploy diverse IoT data by applying advanced analytics (such as video and text) at the edge, in motion or at rest. This type of automated solution can scale to meet the most dynamic business needs.

Sense — **Understand** — **Act**

Data Access → Intelligent Filter/ Transformation → Streaming Model Execution → Data Storage → Ad Hoc Analysis → Model Development/ Deployment → Alerts/ Reporting

SAS supports the full IoT analytics life cycle.

- **Enhance productivity and simplify deployment**. From data preparation and exploration to model development and deployment, everyone can work in the same, integrated environment.
- **Ensure scalable and elastic processing**. Get the flexibility and speed you need for faster answers to complex questions.
- **Improve interoperability**. Use APIs and the programming language of your choice; unify disparate toolsets and analytics assets within a streamlined, collaborative environment.
- **Use the most innovative machine learning techniques**. Analyze structured and unstructured data and integrate all other tasks in your analytical processes.
- **Close the IoT analytics loop**. Support big data analytics for data at rest as well as targeted edge analytics on IoT endpoints.

The Solution

Built on a proven technology foundation, SAS integrates streaming data with analytics and visualization so you can get more insights and value from the IoT. Whether your data is at the edge, in motion or at rest, SAS technology helps you make swift decisions while reducing data movement and storage costs. Our solution covers the full analytics life cycle, starting with data capture and integration and extending to analytics and deployment. With SAS, you can:

- **Sense what matters**. The SAS Event Stream Processing engine helps you perform real-time data management for IoT devices, networks and usage data. Intelligent filtering deciphers signals from noise so you'll know what's relevant for your business.
- **Understand the signals in data**. Use SAS to mine and analyze IoT data throughout the connected ecosystem. Combine IoT data with other sources that add context, and detect patterns of interest as events occur.
- **Act with speed and confidence**. Enhance collaboration between data scientists and IT to speed time to deployment. Ensure analytics are deployed consistently across your enterprise so you can access and prepare data, activate features, perform exploratory analysis, and build and compare machine learning models. You can also create score code to implement predictive models rapidly.

Capabilities

Support for the IoT analytics life cycle

The IoT opens many opportunities to transform how you interact with customers, products, services and operations. To capture its full value, you need an analytics solution that takes an enterprise approach. SAS supports analytics throughout the IoT infrastructure – from the data center or cloud all the way to the edge, and at any point in between.

Proven event stream processing capabilities

Our IoT solutions are built on SAS Event Stream Processing, which analyzes data in motion by processing huge volumes at very high rates (in the range of millions per second) – with extremely low latency (in milliseconds). You can also embed this powerful solution in devices to shift intelligence to the edge.

Comprehensive analytics capabilities, proven data management techniques

Our scalable edge-to-enterprise platform bridges IT and operational environments, enabling a complete analytics life cycle. From visualization and statistical modeling to descriptive, predictive and prescriptive analytics, SAS' diverse interoperability and deep IoT analytics expertise (including AI, machine learning and deep learning) can reduce risk and speed time to value.

Flexibility to run on a range of hardware, or in the cloud

Our open, scalable analytics platform operates in a diverse technology ecosystem to help you make swift decisions while reducing data movement, latency and storage costs. SAS unifies disparate tool sets and analytical assets into a streamlined, collaborative environment.

Learn More

Organizations are shifting from an IoT *planning* to an IoT *executing* strategy. By fusing advanced analytics and AI with IoT data, SAS positions you to make faster, better-informed decisions now and as your infrastructure scales to meet dynamic needs. Learn more at sas.com/analytics-iot.