

SAS[®] Analytics for IoT: Connected Customer

Improve customer experience by fusing IoT data with analytics



Key Benefits

With SAS Analytics for IoT, you can:

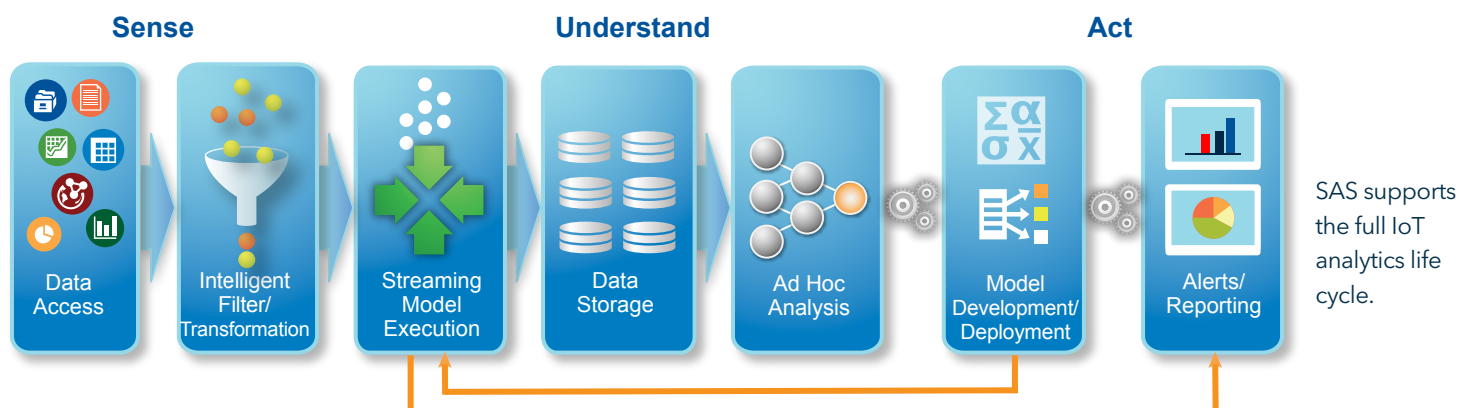
- **Sense customer needs and preferences in real time** using smart devices to gather location-based information. Then integrate that data with previously known information to form contextual insights into the current shopping trip.
- **Gain a deeper understanding of customer patterns.** Tap into the full potential of all your enterprise data to discover what your customers truly need, so you can respond in real time with meaningful, appropriate offers.
- **Provide new, profitable services to customers** by combining what you've learned from previous customer experiences with what you anticipate about future needs.

Overview

Organizations have always collected information about their customers. Loyalty programs, while initially meant to reward customers, became a tool through which retailers and other customer-centric organizations formed a more intimate relationship with consumers. The IoT promises to make this goal far more achievable. From wearables to cars to store beacons, IoT data provides a rich source of information about consumer behavior. Combining traditional and IoT data enables organizations to get closer to each consumer, creating a market of one. The result can be unique, value-added services and specific, targeted offers that make a real difference.

Analysts expect the IoT to soar to tens of billions of devices by 2020. But simply collecting data from connected consumers, sensors, systems or products is only part of the story. IoT data presents many challenges. These are due to the complexity inherent in capturing and analyzing extreme volumes and varieties of data torrents flowing from ever-increasing numbers of things. And it's crucial to understand which data is relevant, so you'll know what to store versus what to ignore.

A trusted, automated solution can provide flexibility about where, when and how to manage and analyze IoT data. So you can capture value in real time - as customers are walking down store aisles or driving to their favorite restaurant.



Do you need to get more out of the connected world? With SAS® Analytics for IoT, you can:

- **Connect with your consumer.** IoT data reflects context (the customer's time and place) so you can identify when assistance or an incentive to purchase is needed.
- **Monitor store traffic, then respond proactively.** Video or Wi-Fi foot-traffic monitoring at smart stores reveal in real time if customers dwell at a product area so you can direct an associate to help. Later, analyze the information to adjust store layouts for more efficient customer visits.
- **Converge online and offline experiences.** Bring the convenience of online shopping to the store floor and endless aisle. With IoT, you can automate real-time recommendations and decisions through interactive customer channels – mobile, clienteling apps and point of sale.
- **Personalize 1-to-1.** High-performance analytics predicts desired items and the manner in which each customer wants to shop. Turn this knowledge into personalized content for kiosk, mobile and more.

The Solution

Building from a proven technology foundation, SAS integrates streaming data with analytics and visualization so you can get more 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.** SAS incorporates a proven event stream processing engine so you can do real-time data management against IoT data. This includes intelligent filtering that deciphers signals from noise so you'll know what's relevant for customers.
- **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.** SAS decision management capabilities drive real-time action – from simple alerts to complex, automated responses.

SAS Analytics for IoT encompasses event stream processing along with visualization and analysis capabilities in a storage platform of your choice. It supports analytics at the edge – as well as analysis, visualization and data integration on the server side (data center or cloud). Get the speed and insight you need to stay connected with customers.

Capabilities

Support for the IoT analytics life cycle

The IoT opens many opportunities to transform the way you interact with your 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

SAS offers the widest and deepest range of analytics capabilities – from basic reporting and traditional statistics to descriptive, predictive and prescriptive techniques – as well as machine and cognitive learning. We develop and continuously improve upon the latest techniques to find those best suited for high-frequency and streaming data. Our industry-leading data management capabilities can take IoT data – generated anywhere – and make it analytics-ready.

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

SAS runs on a wide variety of platforms, including low-cost commodity hardware. It can exploit big data appliances and run in the cloud. SAS also works with many communication and hardware vendors to support embedded analytics in their edge devices – especially IoT gateways.

Learn More

Organizations today are shifting from an IoT *planning* to an IoT *executing* strategy. By fusing analytics with IoT data, SAS positions you to make faster, better-informed decisions in this new landscape. Find out more at sas.com/analytics-iot.

To contact your local SAS office, please visit: sas.com/offices

