Edge Intelligence with SAS Event Stream Processing®

Enable AI model-driven powerful analytics, insights, and decisioning for the smarter and more autonomous edge

Introduction

SAS and Lenovo collaboratively developed an edge-to-enterprise solution that enables organizations across industries to improve operations and outcomes by gathering and processing data at the edge.

Leveraging Lenovo's IoT Smart Edge devices and SAS Event Stream Processing®, the solution – relies on various IoT sensors for edge data collection, and the power of SAS IoT analytics to enable organizations to analyze streaming data, along with all types and sources of customer, network, and behavioral data – helps to identify patterns and uncover hidden insights with AI and make real-time, intelligent decisions in the environment of choice.

Challenges

Enterprises need to manage the growing number of data sources from connected people, machines, equipments, devices, and "things" - presenting new challenges for data transmission and storage. IT is being asked to deliver a solution to reduce the need for transmitting all data from the edge to the cloud, and instead use more analytically driven approach that can intelligently help to decide what to keep and what to discard, at the edge. This intelligence is also needed to deliver decision making closer to where the data originates, to eliminate delays when a situation requires attention or a customer needs service, and it needs to deliver that without connectivity to the cloud.

Solution

A pre-integration of Lenovo IoT Smart Edge devices with SAS Event Stream Processing® allows enterprises to process data where and when it is generated. This reduces the need to transport the data elsewhere (traditionally to the cloud) for processing. Inferencing can take place at the network edge, while model training can still happen in the cloud or at the datacenter. The solution also enables multiple industry vertical solutions using one unified foundational platform.

Features/Results

Simplified edge-to-enterprise data collection, device governance, and insight generation. Streaming data from operations, transactions, sensors and IoT devices is valuable – when it's well understood. SAS Event Stream Processing® extends streaming analytics capabilities to the edge. It's engineered for low-latency processing of millions of events per second, running on smaller, edge-specific hardware. With SAS and Lenovo IoT Smart Edge devices, you can seize opportunities and spot red flags hidden in torrents of fast-moving data flowing through your business.

- Make faster, more intelligent decisions at the edge to understand events while they're happening

- Analyze data continually as it's received, without having to send it to a traditional data center

- Update situational intelligence and respond with agility as new events emerge

- Capture the business value of information immediately, rather than losing it to information lag

Analyze high-velocity big data at the edge while it's still in motion − before it's stored − so you can take immediate action on what's relevant and ignore what isn't.