

Striim + Microsoft Azure for Real-Time IoT Intelligence

The combination of Striim with Microsoft Azure IoT Gateway SDK, Microsoft Azure IoT Hub, and Microsoft Azure Event Hubs helps manufacturers quickly build a smart data architecture that stores only relevant IoT data, and enables insight when and where it is needed for use-case-driven cloud analytics. Such insight is key to achieving the core objectives of Industrie 4.0, that of improving efficiency, intelligence and security.

THE NEW ERA IN DISCRETE MANUFACTURING: INDUSTRIE 4.0 HAS ARRIVED

The digital revolution is now taking over manufacturing, in addition to finance, healthcare, consumer products, and media industries. Industrie 4.0 has come to life with digital transformation in the discrete manufacturing space, giving birth to the Digital Factory.

Internet of Things (IoT) is a key digital disruptor that enables Industrie 4.0 by connecting physical devices to the digital world. Using IoT solutions, manufacturing companies can better understand customers' needs, empower their employees, offer new products that unlock new revenue streams, and optimize their operations to deliver higher quality products, faster to the market.

MAKING THE DIGITAL FACTORY A REALITY WITH MICROSOFT AZURE IOT SOLUTIONS AND STRIIM

Microsoft Azure offers a sophisticated set of IoT solutions that provide the foundation for Industrie 4.0 initiatives. Striim (pronounced 'Stream') is a streaming data platform that can both run on Microsoft Azure, and integrate with the Azure IoT Gateway SDK, Azure IoT Hub and Azure Event Hubs to enable real-time edge processing, edge analytics, and cloud-based streaming analytics.

REAL-TIME EDGE PROCESSING AND EDGE ANALYTICS WITH STRIIM

Together, Microsoft and Striim bring manufacturers the flexibility to distribute their data processing and analytics in a way that serves their business most effectively. With its certified integration to Azure IoT Gateway SDK, Striim can run on edge servers to pre-process and analyze sensor data before delivering to Azure IoT Hub.

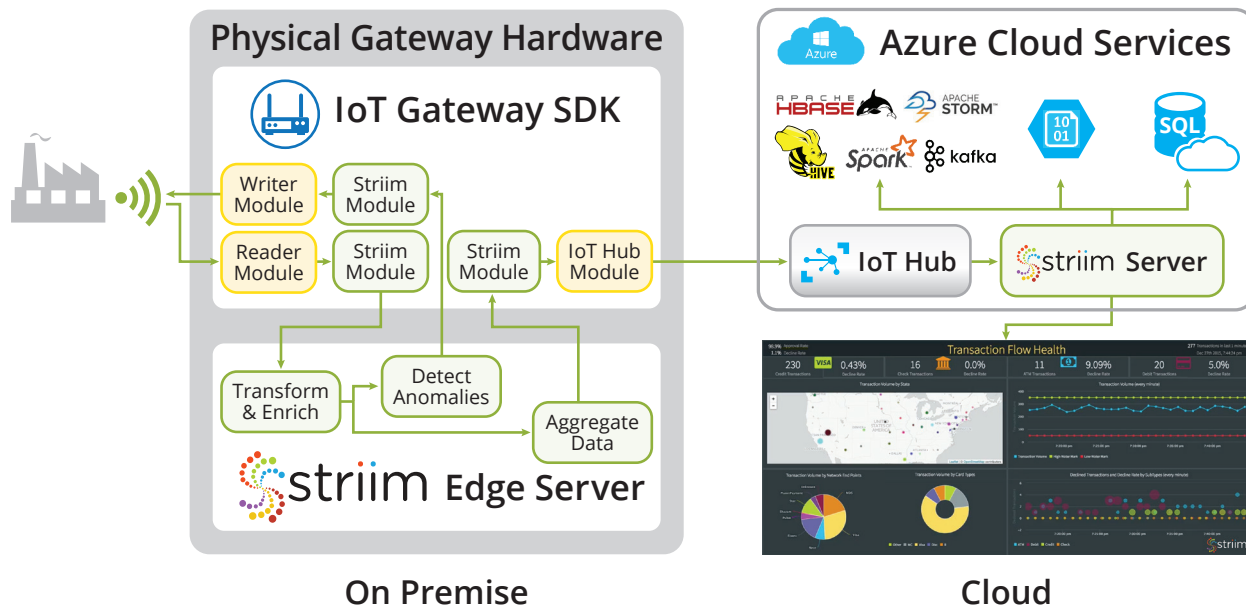
WHY STRIIM?

- **End-to-end** platform for processing and analytics
- **Enterprise-grade** performance, scalability, reliability, and security
- **Easy-to-use** for fast time to market
- **Easy-to-integrate** with the rest of the enterprise

KEY DIFFERENTIATORS FOR STREAMING ANALYTICS:

- Create multiple data flows
- Run parallel queries
- Integrate and enrich in-flight
- Deliver to multiple targets

Thanks to the Azure IoT Gateway SDK's modular architecture, Striim can provide bidirectional communication from Striim Edge Server to the Gateway. It performs filtering, transformation, and aggregation of raw data, in addition to performing a comprehensive set of analytical processing at the edge. By using edge processing, manufacturers have the option to store only the data that they need, in the form they need.



For edge analytics, Striim can perform multi-stream correlation, pattern detection, and statistical analysis, as well as integrate with third-party machine learning models through extensions.

Use cases for edge analytics in discrete manufacturing include:

- **Real-Time Product Quality Control:** Detect product quality issues by comparing real-time machine and environment data to the historical data gathered from high-quality products.
- **Safety Compliance:** Ensure adherence to safety guidelines by continuously monitoring air quality, temperature, humidity etc., and enable immediate action, on-site, without needing to wait for centralized analysis.
- **Detecting a Security Breach:** Analyze data beyond the machine to have a clear understanding of each machine's current state, and detect any anomalies in settings that might be hidden due to malware in the system. Striim uses machine, environment and network data to detect any security breaches and alert immediately.

CLOUD-BASED REAL-TIME IOT ANALYTICS WITH STRIIM

Through integration with Azure IoT Hub and Azure Event Hubs, Striim offers streaming analytics on the data it streams into Azure. With this capability, companies can gain further insight from their IoT data by combining it with other relevant data coming from on-premise systems or the Azure environment. Striim can also deliver the processed data and insights into other Azure solutions, such as Azure Storage and Azure HDInsight.

For more information, or to schedule a demo, please contact us at info@striim.com or at **+1 (650) 241-0680**.