

Stream Analytics

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Corporate Overview – ValueMomentum Software Services





- Software & Services Firm
- Financial Services & Insurance focused
- Established in 2000 with HQ in NJ, USA
- 150+ dedicated R&D team
- Executive Leadership and Practice Heads based in the US
- Offshore centers are SSAE 16 SOC 2 certified. Clean Rooms for several clients offshore

23%

Compound Annual Growth Rate since 2000

4

Analysts covering ValueMomentum Software & Services

>65

Clients Served in North America 1,850+

Global employee strength

Top 15

IT Services Vendor for North American P&C Carriers by # of customers*

14

>5 Year Customer Relationships Average ~8 years

BUSINESS FOCUS



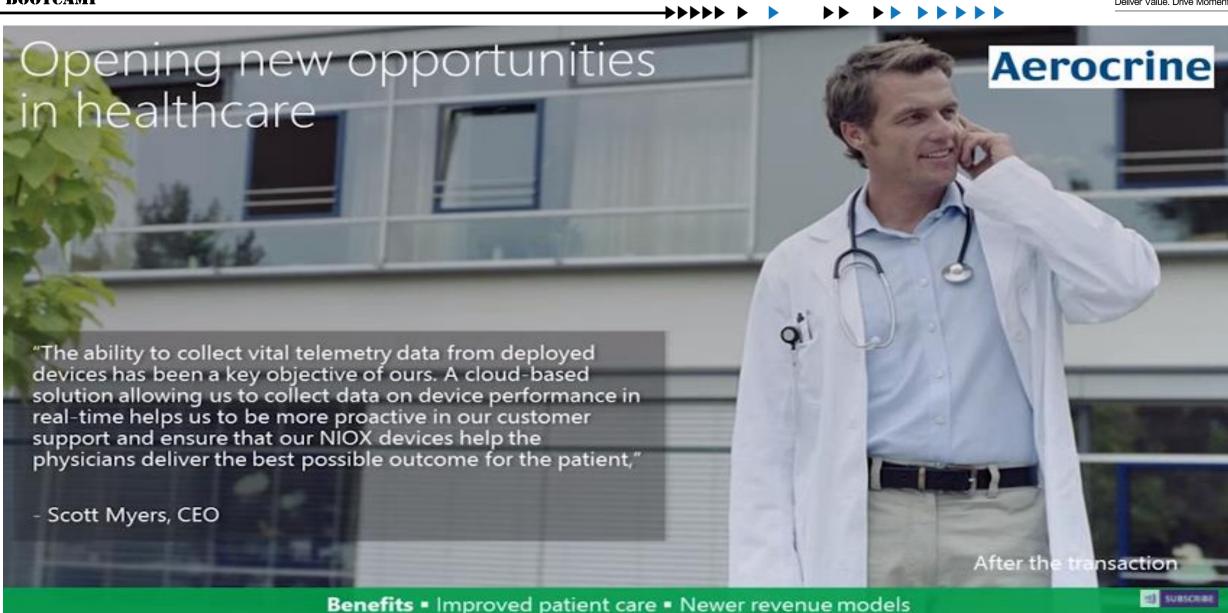
- Banking & Lending
- Capital Markets



- Property & Casualty
- Healthcare
- Life & Annuities

Story 1





Story 2





Filtering the signal from the noise

Objectives

Connect Rolls-Royce jet engine data to Microsoft's intelligent cloud for insights to improve aircraft performance, safety and maintenance.

Tactics

Use Cortana Intelligence to scale quickly and efficiently, aggregate data across customer fleets and process data in real time.

Results

- More efficient flight and maintenance plans
- Targeted and actionable fuel efficiency insights
- Quickly-generated reports and dashboards that tell compelling stories and deliver high-quality insights

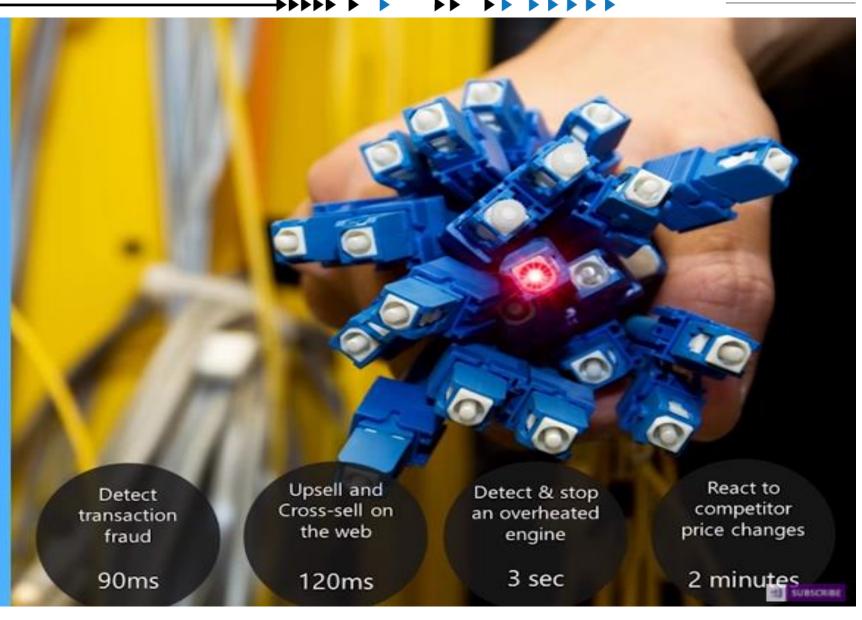


What is Stream Analytics? How it works?

Real Time Analytics



Time to action determines how quickly data needs to be analyzed



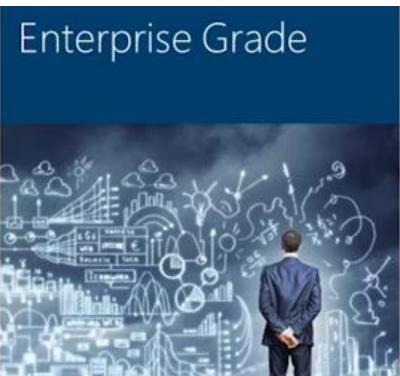


What is Azure Stream Analytics?













Cloud Based



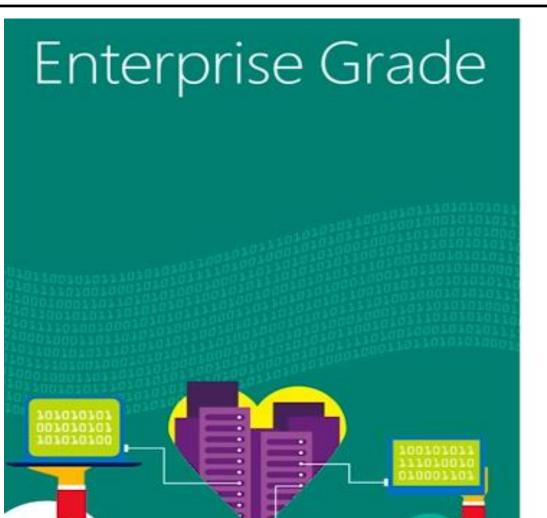


- Zero upfront costs
- Up and running in seconds
- No SW or HW maintenance
- No performance tuning
- Pay only for usage



Industry Compliant







- Guaranteed events delivery
- Guaranteed 3-9s availability
- Built on a distributed scale-out architecture for low latency analytics
- Ingest millions of events per second
- Available across multiple Azure data centers and sovereign clouds worldwide









ISO 27001

SOC 1 Type 2

SOC 2 Type 2

SOC 3 Type 2





Model Clauses



GB 18030



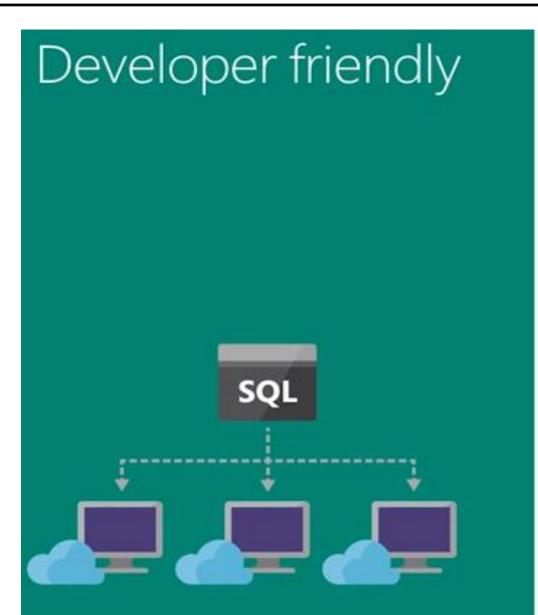




Development Tools







Data Manipulation

SELECT, FROM, WHERE GROUP BY, HAVING, CASE WHEN THEN ELSE, INNER/LEFT OUTER JOIN, UNION, CROSS/OUTER APPLY, CAST, INTO, ORDER BY ASC, DSC

Date and Time Functions

DateName, DatePart, Day Month, Year, DateDiff DateTimeFromParts, DateAdd

Temporal Functions

Lag, IsFirst, Last CollectTop

Windowing Extensions

TumblingWindow HoppingWindow SlidingWindow

Aggregate Functions

SUM, COUNT, AVG, MIN, MAX, STDEV, STDEVP, VAR VARP, TopOne

Mathematical Functions

ABS, CEILING, EXP, FLOOR POWER, SIGN, SQUARE, SQRT

String Functions

Len, Concat, CharIndex Substring, Lower Upper, PatIndex

Scaling Extensions

WITH, PARTITION BY OVER

And many more...

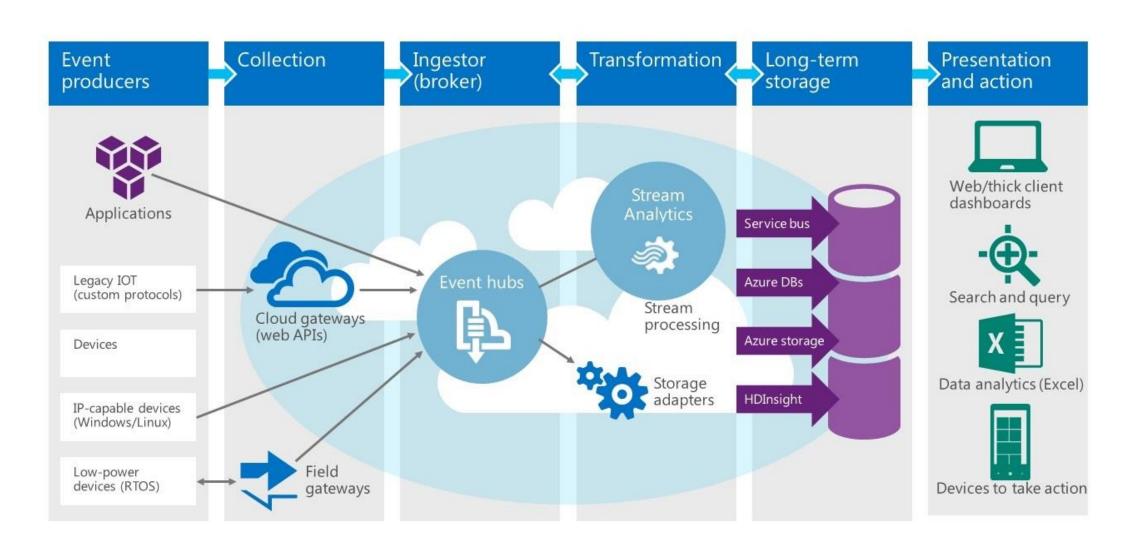
Such as UDF for ML Scoring, Geospatial functions etc.,



Stream Analytics at Work





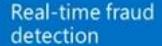




Industry Use cases









Fleet management and Connected cars



Clickstream analysis



Real-time patient monitoring



Smart grid



Customer behavior in stores



IT Infrastructure and Network monitoring



Real time demand and inventory management



Demo 1

Toll Booth



"Hello, Toll!"





- A Toll station is a common phenomenon, we encounter them on many highways, bridges, and tunnels across the world.
- Each toll station has multiple toll booths.
- At manual booths, you stop to pay the toll to an attendant.
- At automated booths, a sensor on top of each booth scans an RFID card that's affixed to the windshield of your vehicle as you pass the toll booth.
- It is easy to visualize the passage of vehicles through these toll stations as an event stream over which interesting operations can be performed.

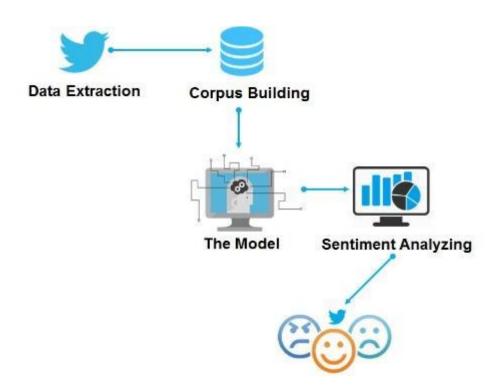
Demo 2

Real-time Twitter sentiment analysis



Twitter Sentiment Analysis Use case





- Social media sentiment analysis in real time
- A company that has a news media website is interested in gaining an advantage over its competitors by featuring site content that is immediately relevant to its readers.
- The company uses social media analysis on topics that are relevant to readers by doing real-time sentiment analysis of Twitter data.
- To identify trending topics in real time on Twitter, the company needs real-time analytics about the tweet volume and sentiment for key topics. In other words, the need is a sentiment analysis analytics engine that's based on this social media feed.



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