



# DATA & ANALYTICS BECAUSE "REAL TIME" REALLY MATTERS

## Take action when it matters most

What if, instead of measuring lost customers through churn or missing profits due to fraud, you could prevent negative events from happening in the first place? That's precisely what you can do with the Software AG Data & Analytics Platform. You can predict and detect significant business events as they happen. Take action the moment it matters most, making it possible to minimize the risk and maximize your gain.

## Decide quickly, act instantly

The Software AG Data & Analytics Platform is an end-to-end, modular and integrated set of world-class capabilities optimized for high-speed data management and analytics on real-time data and offering out-of-the-box integration and connectivity to all key enterprise data sources. Choose the capabilities you need: streaming, predictive and visual analytics along with messaging for easy integration with other enterprise apps and an in-memory data store for extremely fast access. Integrate historical and other data for comparison—ideal when building models or enriching customer and other vital data.

# Make real-time data & analytics your real advantage

## Streaming analytics: Analyze and act on fast-moving big data in real time

As big and fast data proliferates, more and more data streams are generated in real time from a myriad of sources—market data, mobile devices, Internet of Things (IoT) sensors and clickstreams, as well as internal transactional systems. No need to be intimated when you use Software AG's award-winning streaming analytics technology.

## WHY USE OUR PLATFORM:

#### **ADVANTAGE #1**

#### Analyze and act in real time

Become that agile enterprise by responding to events in real time, the moment they happen—or the moment an event is predicted to happen...

#### **ADVANTAGE #2**

## Choose from a full set of world-class tools

Count on market-leading, realtime technologies across every component in the stack. Our modular platform enables you to add capabilities as you need them

## **ADVANTAGE #3**

#### Realize ROI faster with out-of-the-box integration

Baked-in integration—both between our components and the ability to integrate with other applications—means you don't need to build, test and maintain multiple integration points across multiple products.

Using streaming analytics, you can:

- Design, develop and deploy sophisticated analytics that monitor any number of event streams and highvelocity event data of any kind
- Detect and analyze patterns from many sources at the same time
- Respond to events the moment events happen—or even before they happen, when you integrate predictive models
- Automate responses to take intelligent actions instantly without human intervention
- Spot significant patterns of events, like a change in credit-card spending that might be indicative of fraud

Use our powerful streaming analytics capabilities where you see fit—on edge devices, in the cloud or on on-premises servers—to analyze and filter data at a local level before passing it to the back-end for more processing.

# Artificial intelligence: Seamlessly integrate data science into your apps & processes

Artificial Intelligence (AI), machine learning and predictive analytics are defining new possibilities for everyday business processes. How quickly your enterprise can empower your operations with AI will determine your success in the fast-growing digital space. That's why Software AG's AI technology enables you to operationalize AI and other advanced analytic models without the time and cost of expensive custom coding.

Using our AI engine, you can:

- Deploy AI into any process, anywhere, anytime
- Apply an advanced algorithms framework and correlate multiple streams of high-volume, fast-moving data
- Put Al models to work ASAP in 24/7 mission-critical systems across heterogeneous networks or for edge analytics in your IoT

 Leverage machine learning models, often supplementing or replacing manual processes with automated systems using statistically derived actions in critical processes

No matter where your applications are running—in the IoT, a distributed environment, the cloud or on a mainframe—you can execute, optimize and scale models without allocating dedicated IT resources. This includes deep neural network models built using Keras, Caffe or Tensorflow.

## Data visualization: Transform raw data into meaningful dashboards

Why read through lines of data when you can visualize its impact in an instant on a dashboard? Whether interacting with live data or fine-tuning automated decisioning processes, you can turn data into meaningful dashboards on any device using Software AG's data visualization capabilities powered by our data visualization component:

- Simply "point and click" to build dashboards—no assistance needed from IT!
- See where to take action in an instant across high-volume data
- Blend data from almost any source the very latest IoT data, historical data and real-time event data for right-time decision-making
- Rely on an intuitive user interface to identify visual patterns quickly
- Share dashboards in a secure way since no data is stored on any device

Visualize exactly what's happening at any point in time and share this information in a way that is easily understood across the enterprise. Measure "what is happening" and also understand "why it is happening."

## High-speed messaging: Get time-critical data where it needs to go, fast

The same platform that brings you worldclass analytics also incorporates top-of-theline connectivity to get your critical data where it's needed, when it's needed. That could be pushing data from a sensor to a predictive model on an IoT gateway or pulling contextual reference data from an enterprise system for an Al application.

Using our universal messaging layer, you can:

- Assure real-time data streaming to the edge of your corporate network and beyond to the web, mobile devices and the IoT
- Execute real-time, message-oriented interactions in an event-driven architecture
- Integrate everything seamlessly with support for all common messaging standards, wire protocols and transport options

You get a messaging backbone that's performant, robust, reliable, flexible and simple to use. Count on full interoperability between client APIs of your choice with plugins for all major enterprise applications.

## In-memory data management: Manage your data for maximum impact

With the advent of the IoT, businesses are pushing the boundaries on data volumes

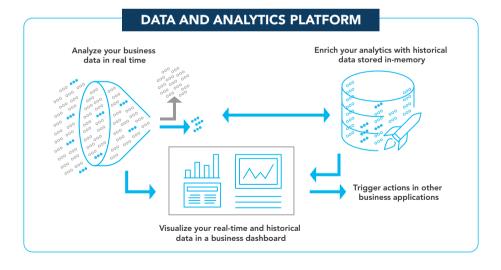
and velocity, especially in analytics where the need to ingest, process and access data in real time is critical to success. That's why Software AG's in-memory data management technology offers the highest levels of scalability and performance.

Our next-generation in-memory store provides a single, unified architecture, fusing the power of a non-relational data store with high-performance in-memory data grid technology.

Using our in-memory data management capabilities, you can:

- Achieve access to data at extremely low, predictable latency at any scale
- Accelerate time to insight—gather, sort and analyze data faster than your competition
- Keep hundreds of terabytes of heterogeneous data maintained inmemory with guaranteed latency of low milliseconds
- Data can be distributed and mirrored across multiple servers to achieve complete resiliency and high availability

Expect the speed, performance and availability from our data and analytics platform to meet your massive data storage requirement and real-time business demands.



What you can do with our platform

## WHAT CUSTOMERS SAY

## OCTO TELEMATICS GROUP:

"Software AG shared our vision of the world. In Software AG we don't have a typical vendor/ customer relationship, we have a partner."

— Gianfranco Giannella | COO & SVP

## SOLAIRE RESORT & CASINO:

"We now have better insight of customers and how we can serve them better with more personalized services at the right time."

- Kel Telford | CIO

## ROYAL DIRKZWAGER:

"The ability to respond quickly to client requests and roll out completely new service offerings in two months gives us a huge strategic advantage."

— Ton de Jong  $\mid$  CIO

## Real-time analytics in the real world

The applications you build are limited only by your desire to better understand, predict and act on insights revealed in those relentless data streams. Here are a few examples:

#### **Optimize customer service**

Immediately recognize repeated calls from high-value customers, and move those calls directly to team members who are empowered to fix the problem.

#### Stop fraud in its tracks

Identify cardholders who make low-value purchases followed by more expensive transactions 200 miles from their mobile phone. Call your customers right away to verify the transactions before they are allowed to complete.

#### Avoid costly downtime

Unexpected shutdowns can cost millions

an hour! Know when parts need to be replaced before equipment fails—and make the change during a scheduled maintenance period.

## Improve logistics management

Identify exceptions in real time. Lower costs by tracing shipments, and satisfy customers through better package tracking and alerting.

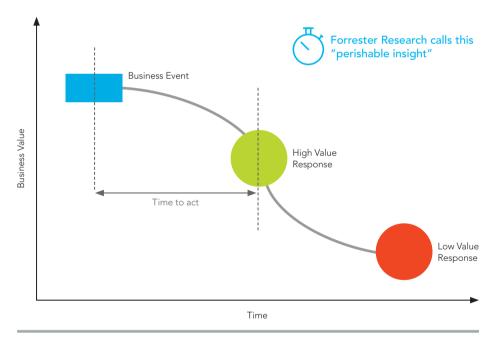
#### Innovate new products and services

Add sensors to products to track their use and monitor customer behavior to customize offers and pricing.



## Take the next step

Explore the unlimited potential of real-time data and analytics for your enterprise by talking to your local Software AG representative and visit www.softwareag.com.



Why you need real-time data and analytics

#### **ABOUT SOFTWARE AG**

Software AG (Frankfurt TecDAX: SOW) helps companies with their digital transformation. With Software AG's Digital Business Platform, companies can better interact with their customers and bring them on new 'digital' journeys, promote unique value propositions, and create new business opportunities. In the Internet of Things (IoT) market, Software AG enables enterprises to integrate, connect and manage IoT components as well as analyze data and predict future events based on Artificial Intelligence (AI). The Digital Business Platform is built on decades of uncompromising software development, IT experience and technological leadership. Software AG has more than 4,500 employees, is active in 70 countries and had revenues of €879 million in 2017. To learn more, visit www.softwareag.com.







