

# TIBCO BusinessEvents®

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## Common use cases

Fraud detection

Real-time monitoring and alerting for vital signs

Detect outages and predictive resource utilization

Tailored customer journeys with instant and customized offers

Accelerate deal securing and transaction closure by reducing processing time

Track and trace

## Why TIBCO

Industrial-scale event throughput

Event Processing from broader contextual information using multiple approaches

Uniquely simplifies rollout of complete event processing solution

## Overview

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In today's global business environment, companies are surrounded by billions of real-time interactions and transactions. You might not be aware of most of these, but they could affect your business. Not acting quickly and intelligently on key events could leave your business behind in a fast-changing market environment. However, leveraging the right technology to help address this challenge could significantly improve your business operations, capture opportunities quickly, speed up transactions, identify risks before they negatively impact your brand, and deploy resources more effectively—all of these factors contribute to the satisfaction of your customers and partners.

Effective decision-making in your business demands a comprehensive understanding of various event types, ranging from historical, current, and expected yet absent events. This complexity is beyond the capability of simple Event Processing that reacts to standalone events. TIBCO BusinessEvents® software provides contextual Event Processing and excels in this area. It employs timeouts to identify missing events, a feature that sets it apart from both simple and stream Event Processing, as neither possesses this advanced capability.

TIBCO BusinessEvents is designed to handle vast volumes of events that large, complex businesses encounter daily, satisfying the rigorous demands of today's high-traffic business environment.

## Take effective action with an array of Event Processing approaches

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TIBCO BusinessEvents offers various approaches and techniques for informed decision-making on events. By leveraging a powerful, high-performance stateful engine, TIBCO BusinessEvents ensures that developers can select optimal methods for their unique scenarios, leading to more accurate and timely outcomes.

## State machines

State Machines are used to track the various states of concepts, each characterized by a set of properties. Take, for instance, the 'department' concept, which includes properties such as department name, manager, and employee details. By adding concept definitions, information that arrives in events can be organized and stored as required. State machines can be used, for example, to better monitor Service Level Agreements (SLAs) at every step by proactively alerting relevant staff in the event of a time-out, and to provide real-time status updates to customers.

## Pattern matching

Pattern match allows for processing to occur if a particular series of events matches a predefined pattern. This approach can detect when duplicate events are received, identify occurrences of timeouts, and recognize events sequences. Pattern matching can be used, for example, to trigger maintenance actions when industrial equipment undergoes successive fault checks within a brief timeframe, thereby ensuring timely and efficient responses to potential issues.

## Decision tables

Decision tables enable the structuring of rules in a format comparable to spreadsheet layouts, utilizing columns and rows to define conditions, actions, and rules. They can be exchanged in Microsoft Excel format, making it easy for non-technical professionals to contribute to an Event Processing architecture.

## Machine learning

In certain scenarios, it becomes impractical or even impossible to devise deterministic rules that adequately cover every possible case. This is where machine learning (ML) becomes invaluable, stepping in to enable optimal decision-making based on sophisticated statistical rules.

## Flexibility and choice

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TIBCO BusinessEvents is designed for large enterprises, offering implementation and deployment flexibility tailored to their unique Event Processing challenges.

## Deploy to your cloud

Choose your preferred deployment environment including: public, private, or hybrid clouds using Kubernetes-native developments as well as on-premises

## Choose your event broker

Easily integrate with your choice of event broker—including TIBCO Enterprise Messaging Service™ (Jakarta Messaging), TIBCO FTL®, Apache Kafka, and Apache Pulsar—offering a robust range of communication interfaces for diverse requirements. For Kafka use cases, TIBCO BusinessEvents supports the Apache Avro format and Kafka Schema registry. Moreover, it extends support to various other input and output channels, such as HTTP, TIBCO Hawk, and TIBCO ActiveSpaces®

## Built on open-source technologies

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TIBCO BusinessEvents embraces open-source technologies, enabling your business to standardize on the most innovative approaches to Event Processing.

## Data Management

Easily manage data as needed, quickly retrieve data stored in memory, and back it up to protect against data loss:

- **Clustering** supported through Apache Ignite or TIBCO FTL
- **Built-in cache** supported through Apache Ignite
- **Persistent storage** supported through various options, including Apache Cassandra, MySQL, PostgreSQL, SQL Server, IBM DB2, Oracle, or TIBCO ActiveSpaces, etc.

You can use Apache Ignite with or without persistence stores. Apache Ignite works with all the existing and newly supported stores.

## AsyncAPI and Open API

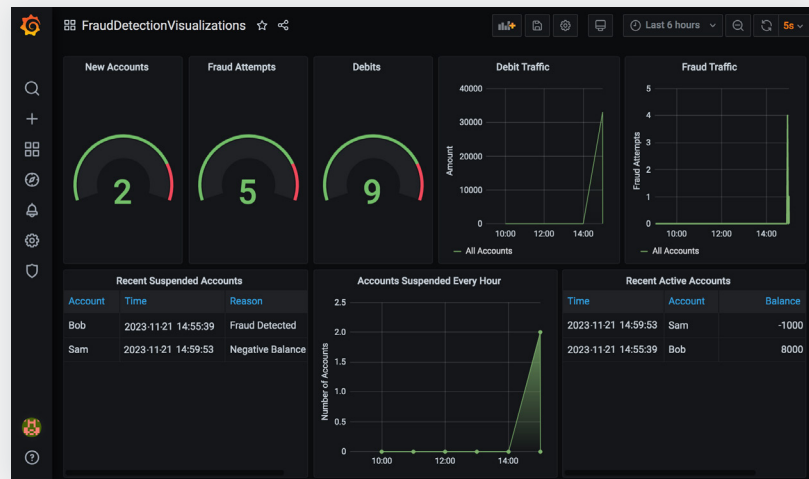
Model, mock, and import your AsyncAPI and OpenAPI specifications into TIBCO BusinessEvents Studio, and quickly create Event-Processing project artifacts. You can also export your existing TIBCO BusinessEvents implementations as AsyncAPI or OpenAPI specifications, thereby enabling seamless interactions between event-driven, API-based applications in a consistent and standardized manner.

## Event Monitoring

Support for OpenTelemetry allows for a standard view of events, logs, and traces across infrastructure components including Event Processing with TIBCO BusinessEvents.

## InfluxDB and Grafana

Store and retrieve time-series metrics data in InfluxDB and visualize it with Grafana, enabling tailored dashboard creation. Metrics Store configurations are independent of the underlying cluster or cache configurations, enhancing performance, security, and maintainability.



*Tailored dashboard for monitoring events and actions.*

## Get started

TIBCO BusinessEvents® software can be used to develop real-time, rule-based applications for your business no matter the industry. With operational intelligence for better, faster decisions and actions, TIBCO BusinessEvents provides superior customer service, optimized costs, improved resources, and increased revenue.

Please [contact us](#) to learn more about TIBCO BusinessEvents and visit [www.tibco.com](http://www.tibco.com) for more details.



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