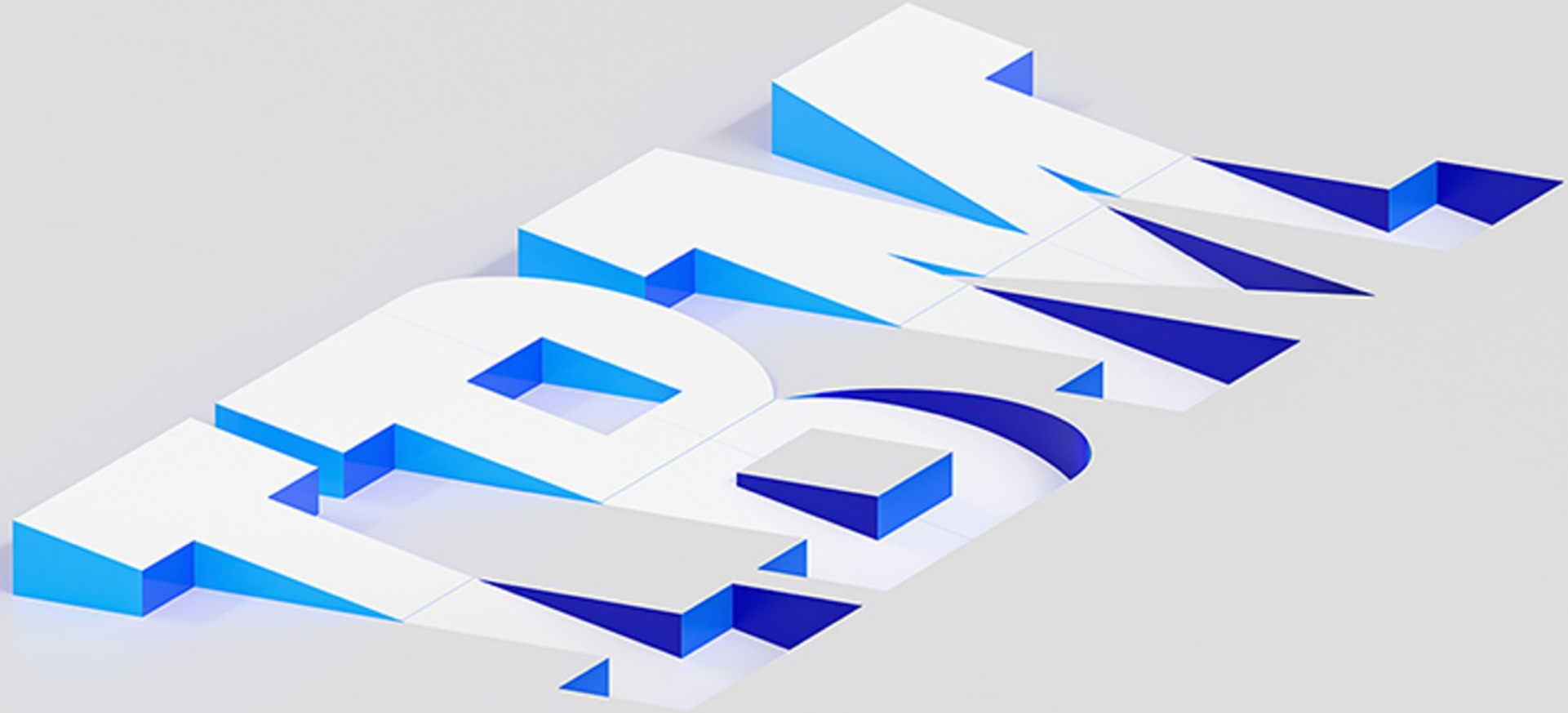
IBM Event Automation



IBM Event Automation puts business events to work by enabling users to detect situations, act in real time, automate decisions, and maximize their revenue potential.

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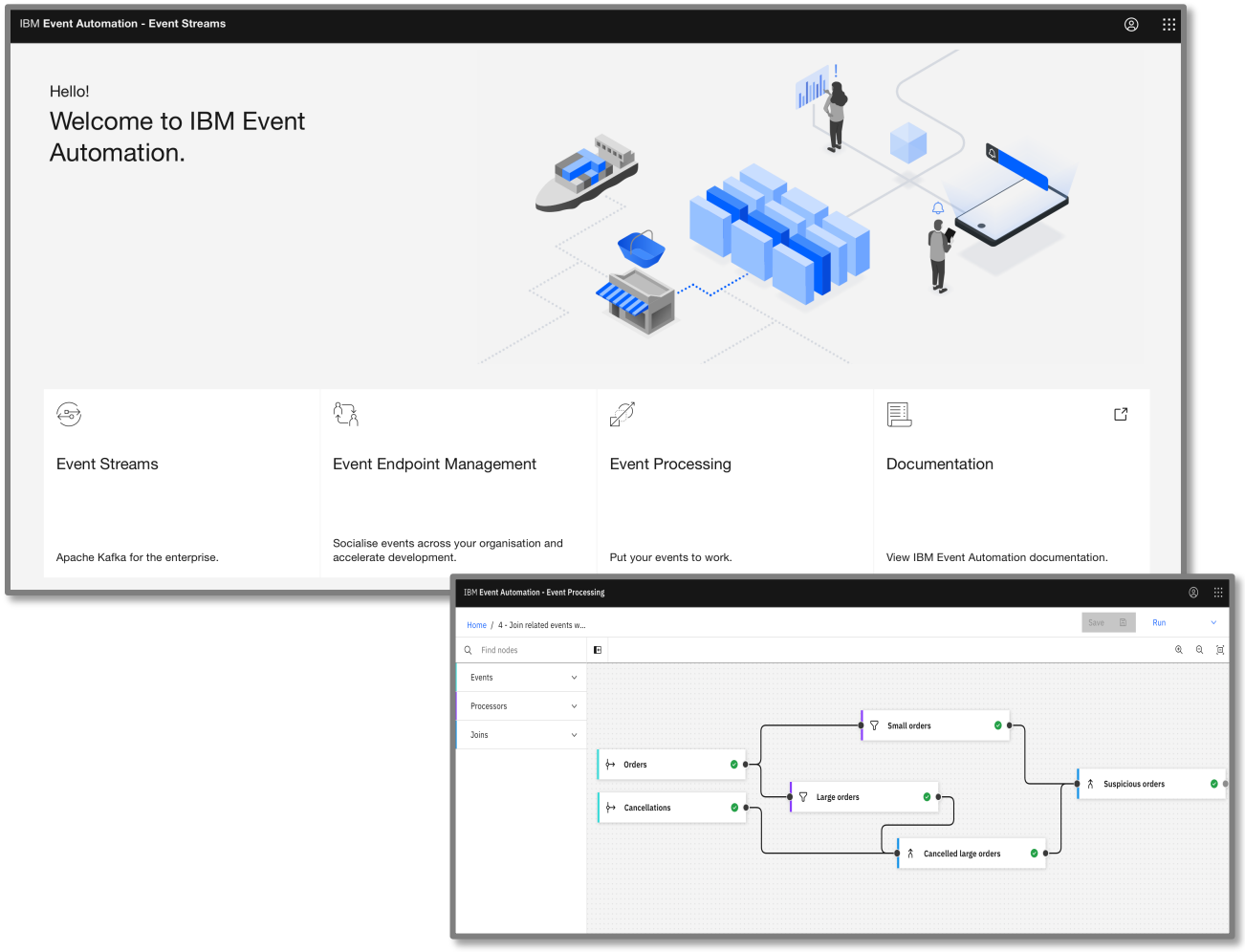


Composable set of capabilities

Event Streams

Collect streams of real-time business events with enterprise-grade Apache Kafka

Event Endpoint Management

Build a self-service catalog of event sources for users to securely browse and utilize

Event Processing

Define business situations in an intuitive, easy-to-use authoring canvas in order to act in real-time and automate decisions

Personas of IBM **Event Automation**

Buyers

CTO

CIO

CTOs and **CIOs** want to **unlock the value of business events**. These events represent a wealth of information about what's happening across their business at any moment in time

When used to detect situations, act in real time and automate decisions, events help them to **move faster than their competition** and **maximize revenue potential**

Influencers

Business Analyst

Enterprise Architect

Business analysts can help the executive vision if they can **create event-driven solutions** using their domain expertise **without needing access to skilled developers**

Enterprise Architects can help the CTO and CIO achieve their goal if they can create the **event-driven architecture** needed to distribute, discover and process events in a way that **integrates with the business's existing technology** strategy

Users

Business Analyst

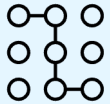
IT Specialists

Business analysts can quickly work with events and build business situations to **identify patterns and trends**

IT specialists can **become more productive** working with events to build business situations and can support their business teams with greater speed. They can also create event catalogs to **allow secure sharing and reuse of events** between different business teams

Event Streams

Deploy
Apache Kafka across the enterprise



Access
Event sources via Kafka Connect and REST API

Manage
Browse messages, monitor key metrics and manage your Kafka deployments

Event Streams is the core of an event-driven enterprise that efficiently makes business events available in the locations they are needed.

Building on open-source technologies like Apache Kafka makes it easy to tap into an entire ecosystem for connectors, analytics, processing and more.

Making it manageable across an entire enterprise by incorporating:

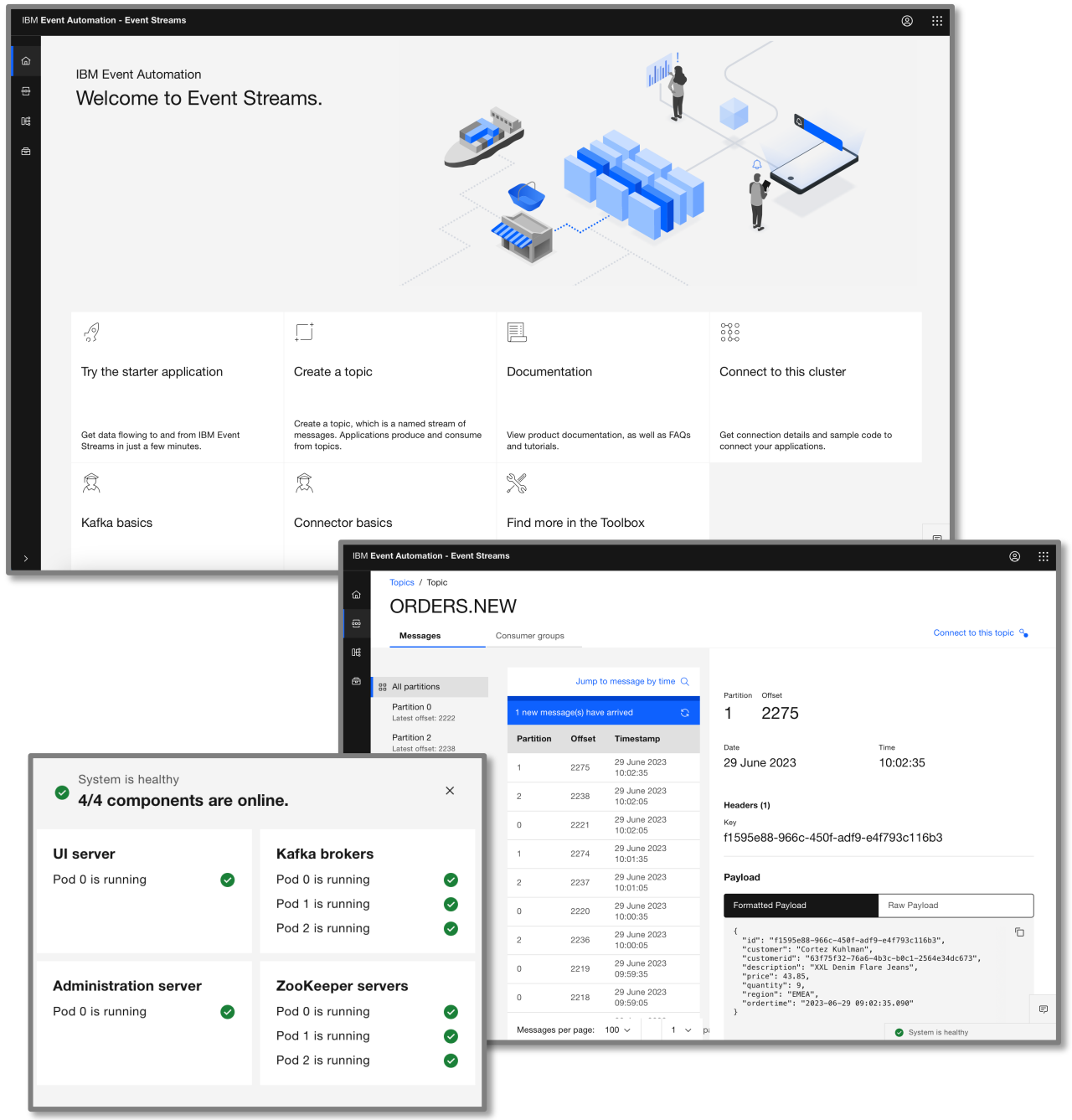
- Operators to deploy Apache Kafka
- Supporting event data schemas
- Workload balancing
- Connectors to access external systems
- Management UI for hybrid deployments

Deploy, Access, Manage

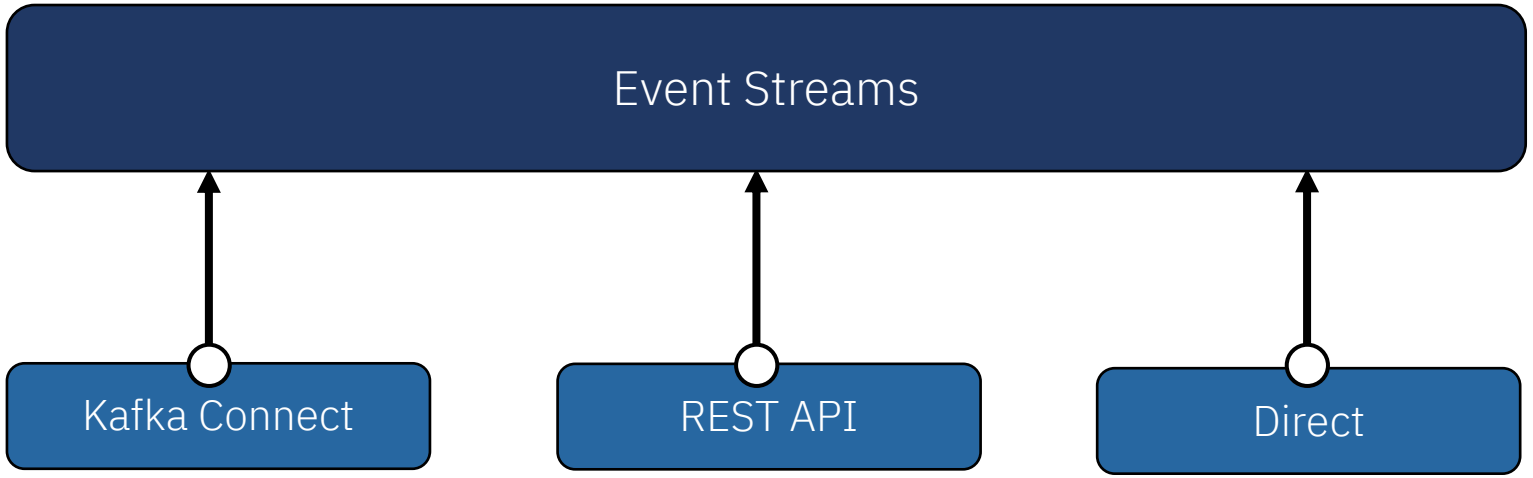
- Consistent and repeatable deployments of Apache Kafka using Kubernetes operators ensures deployment are identical, consistently secured, and easy to manage across your enterprise

- Make events available where you need them by configuring Geo-Replication to distribute events across a hybrid environment

- Control every aspect of Event Streams using the Management UI, enabling users to easily browse messages, balance workload, monitor key metrics and manage your Kafka deployments



Access events from multiple sources to unlock real-time in the enterprise



Event Sources

Examples

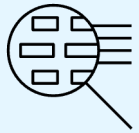
- MQ
- DB2
- Object storage
- Packaged Applications
- Redis
- Mongo

- Appliances
- Mainframe applications

- IBM App Connect
- IBM Change Data Capture
- 3rd party (ie. Mulesoft)

Event Endpoint Management

Describe
Events in a standardized way



Socialize
Publish events for reuse across the organization

Secure
Self-service access to events, while retaining controls and governance

Enable existing events to be discovered and consumed by any user and manage event sources like APIs to securely reuse them across the enterprise.

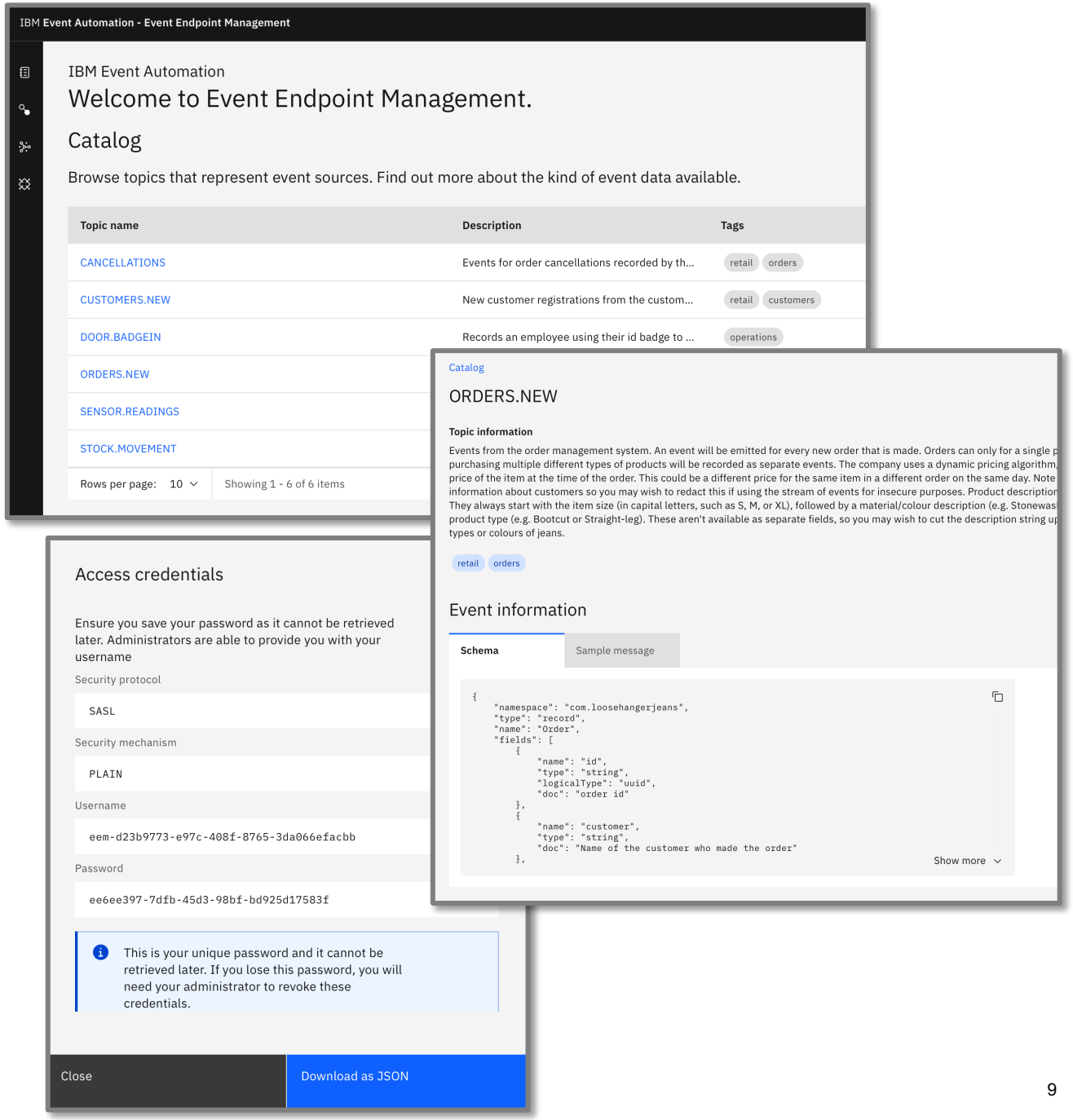
Event Endpoint Management accelerates the implementation of event-driven and situational applications by making the events that drive them accessible to everyone.

Providing a common management facility
where streams of events can be:

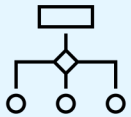
- Described in a standardized way using AsyncAPI
- Published in a searchable catalog
- Advertised for others to gain self-service access based on applied policies and gateway enforcement

Describe, Socialize, Secure

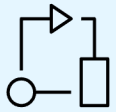
- Event Endpoint Management uses AsyncAPI as the standardized way of describing events so users can quickly understand what they are and how to consume them
- Publish events to the catalog so they can be discovered and consumed by any users in one place
- Define how people can access events and apply policies to ensure compliance. Remove bottlenecks with self-service access based on policies and enforcement via event gateways



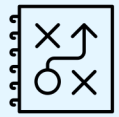
Event Processing



Define
Your business situations without need for deep technical skills



Configure
Operations to process events



Apply
Publish to event consumers to act and automate in real-time

Empower users to work with relevant business events to identify and act on situations in the moment.

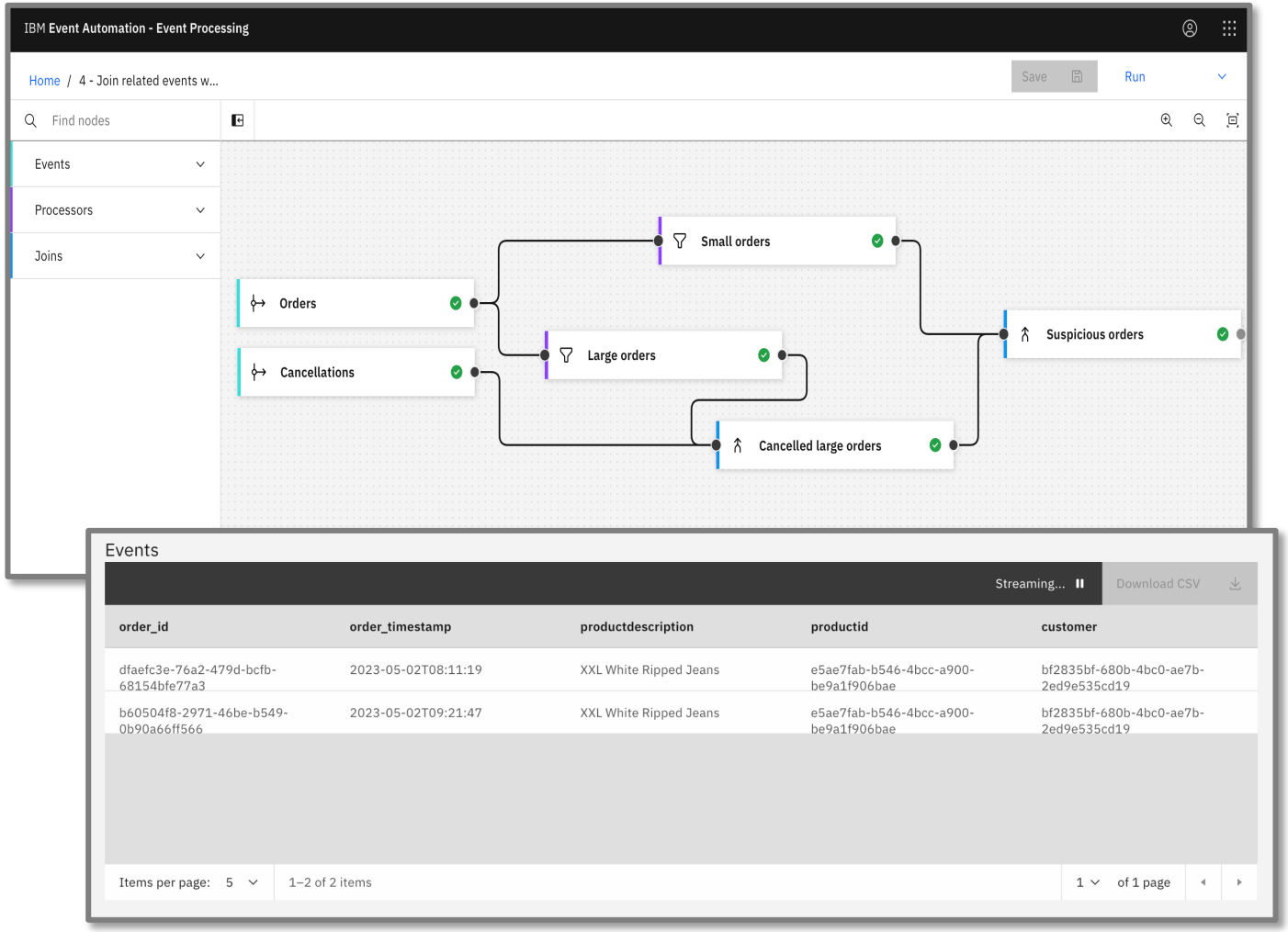
Event Processing takes raw events and makes them relevant to a business context. Users can:

- Filter and transform event properties
- Combine events to identify patterns over continuous time windows
- Aggregate events to analyze trends and detect anomalies

Results can be immediately visualized as well as modified and adjusted to adapt to changing conditions. Outputs can easily be consumed by automation.

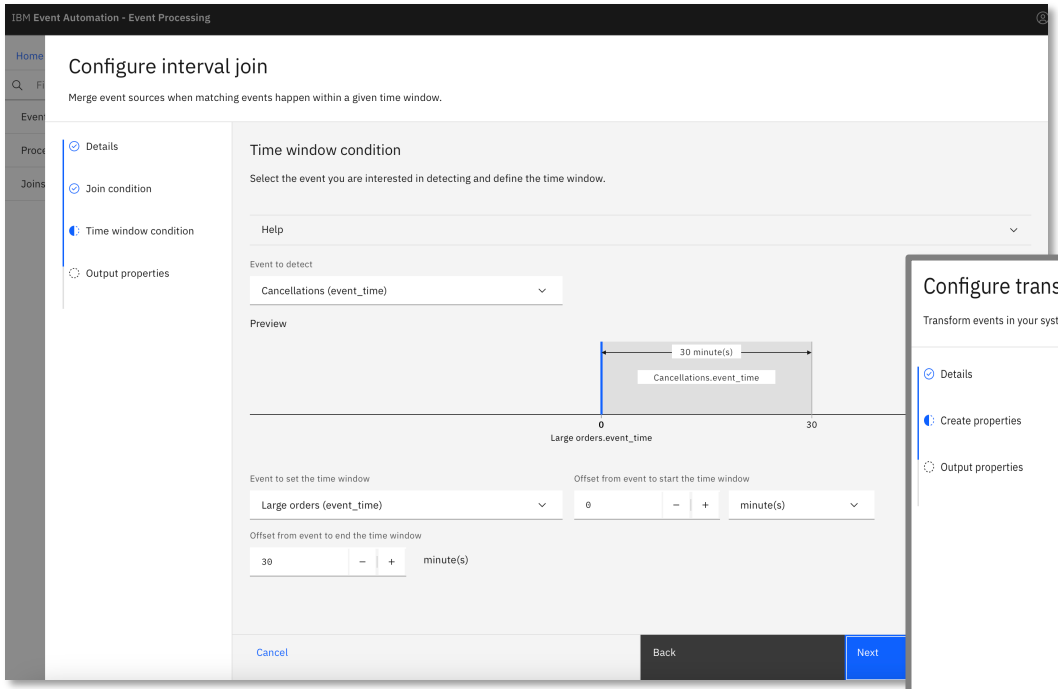
Define situations without writing code

- An intuitive and visual way for users to combine and aggregate events to identify important business situations
- Drag and drop event sources and wire together processing operations, with assistance and validation at each step
- Press run and immediately see output directly in the editor
- Export snapshots of results or send them as a continuous stream to a Kafka topic
- Export SQL processing jobs for a developer to extend

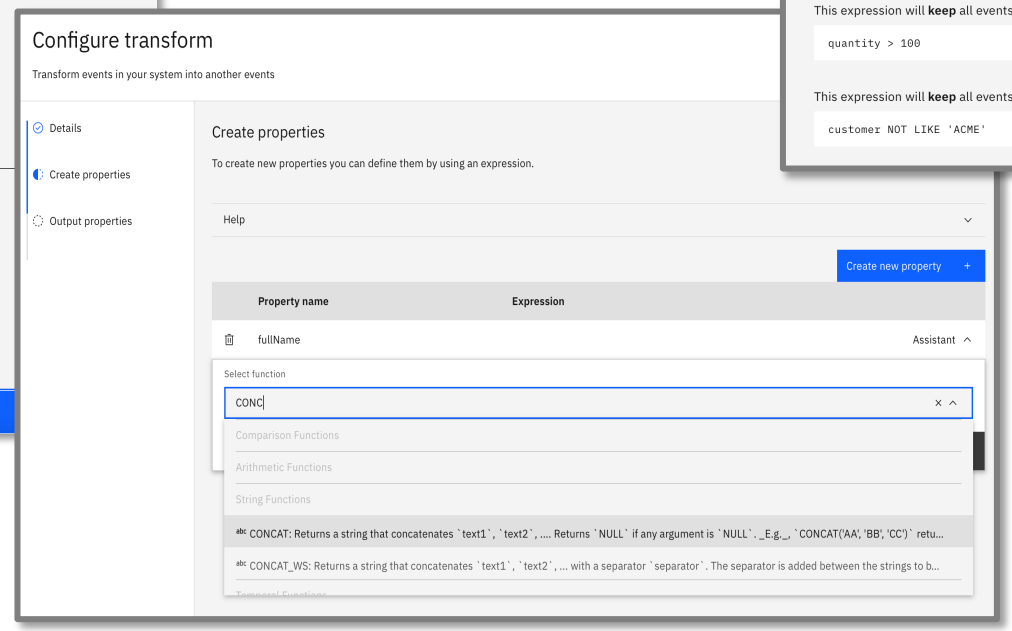


Simple and easy to configure processing

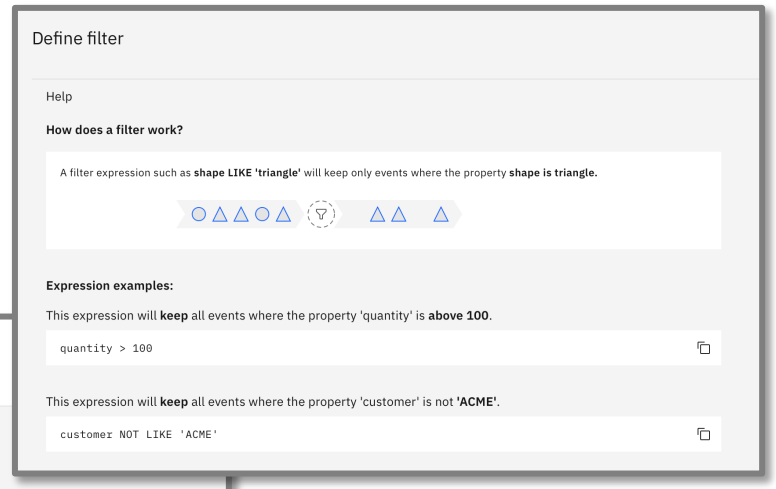
A guided experience with help and assistants to configure processing operations, increasing productivity



Visual representations of events occurring over time windows



Expression builder with context-sensitive help and auto-complete



Embedded help with examples to help you learn

Dynamic inventory management in a retail company

Modern retailers need to differentiate themselves in order to compete with online only options. Most are turning to an omni-channel experience combining mobile apps, website and physical outlets to provide a flexible and convenient service to their customers.

However, many order and inventory management systems are still updated in overnight batches, and with inventory spread across multiple locations, this can lead to customer experience issues.

Items may appear available on the website but have already been sold or are unavailable in a customer's local store for click and collect.

Retailers often prioritize customers in store, offering discounts to disappointed online customers, impacting either sales or margins to retain customer loyalty.

SOLUTION

Real-time events relating to orders and stock (e.g. within a SAP system) are used to create a high quality view of inventory levels and locations across all channels.

Patterns of buying behavior are correlated with up-to-date product availability to anticipate when orders will not be able to be fulfilled.

OUTCOME

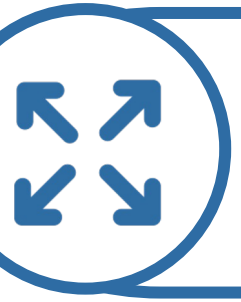
With IBM Event Automation, a retailer could more confidently fulfil orders irrespective of channel.

Additionally, where hot items are running out, events are used to optimize shipments between stores and warehouses to maximize revenue opportunity.

IBM Event Automation enables your event-driven enterprise

Empower broad range of users
Less technical users can work with real-time events to detect and automate business situations using their existing skill set

Facilitate sharing and reuse of events
IT teams can provide self-service access to events while retaining proper controls and good governance



Extend existing infrastructure
Enterprise architects can extend existing event-driven investments with composable capabilities

Go from months to minutes in putting your business events to work!

"It looks so **easy to understand**, can see how the assistants help **educate the business analyst user**."

Large EU Auto Manufacturer

"Like the **productivity of low code** event processing, this will be **very positive as an accelerator.** "

Large North American Bank

"The **benefits of event-driven increase exponentially** with each use case. **This is helping solve for technical complexity** that often stops people dead in their tracks with EDA."

Global Market Intelligence Analyst