

# Contextualizing the Kurrent state of your business

Market leadership and staying competitive demand that your enterprise be data-driven.

Enterprises of all sizes have accumulated a lot of data in a variety of databases and data stores, which are great sources of *what* the state of their business looks like at a given point in time.

When the C-suite and other business leaders make critical decisions, they need answers to *how* and *why* the state of the business is where it is — in other words, the context that led to the point-in-time information in the data stores.

Imagine you missed the first half of a live sporting match, so you can only catch the second half of the game. At this point, all you know about the game is the half-time score. The score only gives you a point-in-time reference of the first half of the game, but you're missing *how* and *why* the score is what it is.

However, if your TV provider offers rewind or replay capability you are able to go back and watch the first half to understand the context of *how* the teams played and *why* the half-time score is what it is.

Similarly, understanding the circumstances (read: *how* and *why*) that led to a particular state of the business at a specific point in time is as important as understanding the state itself.

Modern enterprises have a considerable number of different business processes. The data from these processes are stored in databases, data lakes, data

warehouses, etc., each of which stores data in its own format.

Existing real-time event streaming technologies ingest data from these different data sources and data formats and convert, export, or otherwise transform this data into a common format to give enterprises the ability to gain insight into the current state of their business.

This is the first problem faced by enterprises: data that is transformed will always lose some degree of context.

Even if this is an acceptable loss, enterprises face a second problem: they must then apply their business processes, rules, and systems in reverse

against the data collected by event streaming platforms to reconstruct the context (the *how* and *why*) they have arrived at the current state.

In other words, enterprises are trying to recreate the context behind their business using data that has *lost context!*

Again, even if this is acceptable, to perform this function requires financial investments in additional system resources.

A third problem:

assuming that additional financial costs are acceptable to the enterprise, attempting to gain context from data that has already lost context may result in suboptimal, subjective, and even biased outcomes. The worst-case scenario would be an outcome based on a totally incorrect

## Summary

Kurrent is an event-native data platform designed to capture business events along with the context in which the event occurred.

Business leaders can “rewind” and “replay” events to understand not just *what* the current state of its business is, but *how* and *why* it reached that state.

Kurrent captures events in its native format, removing the need for data to be transformed, losing business context for each transformation.

Kurrent features immutability of data, guaranteed data consistency and order consistency to create a true system of record.

assessment of the business. This is a highly risky proposition for any enterprise.

Lastly, perhaps the biggest challenge for any business: time. The risk and costs associated with the extra time necessary to arrive at a questionable outcome will impact an enterprise's ability to achieve business goals, first-mover advantage, and overall competitiveness.

Bringing this back to the sports analogy:

- The half-time score only gives you a point-in-time status of the game = the state of the business
- To reconstruct how the two teams played against each other to arrive at the half-time score = the business need to understand the *how* and *why* (the context) behind the current state of the business
- Collecting statistics about how each individual player performed = individual data sources and data formats, and then piecing together each player's performance to derive the team's performance = transforming data to arrive at a common format
- Using known tactics of how a given team plays to recreate the progression of the game = applying business processes, rules, and systems against data that has been transformed into a common format

This is hardly an efficient or effective way of understanding how a team functioned together, nor the impact the opposing team.

### Context in Action with Kurrent

Kurrent is a platform that leverages an event-based data model designed to store business events as they happen, not just capturing the state (the *what*), but preserving the context (the *how* and *why*) with guaranteed order consistency to create a true system of record.

By keeping state and context tightly coupled, Kurrent maintains the highest degree of data fidelity and alleviates the need for many of the complex data transformations that are commonly required in downstream data pipelines.

Many data transformations occur to reunite state and context to glean understanding about what happens in a business.

With Kurrent, enterprises can query data with the assurance that the events and their order are unbiased, accurate and objective. Business leaders can search and query the event data by simply "replaying" the events for any given time period.

Kurrent simplifies data architectures, minimizing the financial investment required for business leaders to make decisions that allow them to maintain and extend the enterprise's competitive advantage, meet and exceed investor and market expectations, and accelerate its ability to achieve market leadership.

Kurrent's data immutability and high degree of fidelity give business leaders the confidence that they can rely on the data Kurrent captures to assess, analyze, and explain the state of their business.

Kurrent's benefits are particularly useful in an age when Artificial Intelligence (AI) is a requisite for business success. Kurrent's ability to provide contextualized data to AI models allows developers to build more accurate, relevant, and faster AI-driven outcomes.

### About Neuralytix

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