

DIFFUSION

Intelligent Data Platform

Financial Services

"With Diffusion, we saved 4-6 months of development time, eliminated our 2-3 hours of costly weekly downtime, and we experienced a **5X growth in our major client base**. Now we can focus on market analysis for traders around the globe."

- **Steve O'Hare**, Managing Director, Signal Centre

eGaming

"Using Diffusion has enabled us to improve customer engagement, reduce costs, and exceed our growth targets. In the three years since implementation, we have seen a **20-30% growth in revenue**."

- **Keith Laidlaw**, CIO, GVC

Transportation

"We made the **right choice with Diffusion** – every technical hurdle that we faced with handling Ocean Guardian data and connectivity is addressed by the Diffusion platform."

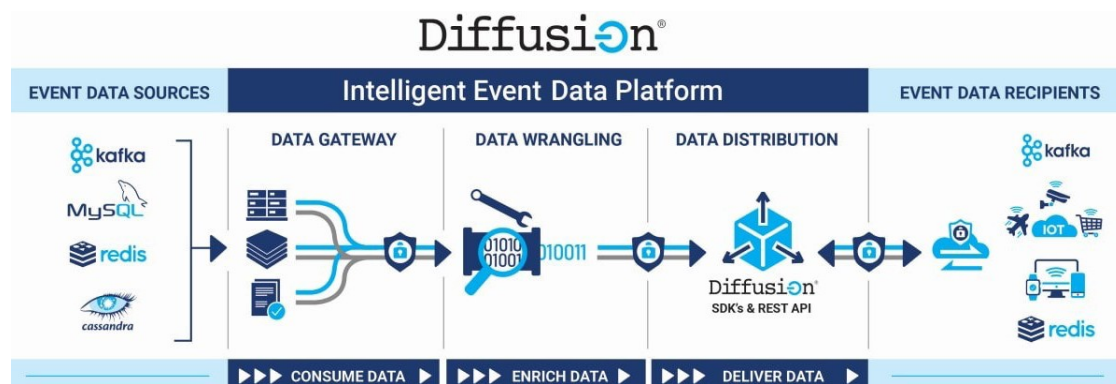
- **Ben Rogers**, CTO, Brenock

And more...

The race for digital transformation is on. Businesses worldwide are building event-driven, real-time applications - from financial services, transportation, and energy, to retail, healthcare, and eGaming companies.

The Diffusion Intelligent Data Platform enables organizations to accelerate innovation and deliver game-changing real-time applications to market faster, while significantly reducing the cost of software development. Once deployed, Diffusion turbocharges the application to deliver Internet-scale performance with significant reduction in CapEx and OpEx costs.

Diffusion is used by organizations worldwide to build new innovative event-driven applications as well as extend legacy systems.



Diffusion is an Intelligent Data Platform that includes everything you need to consume, enrich, and deliver event-data to power your event-driven real-time applications. The three key components of Diffusion are:

- **Data Gateway**, with pre-built adapters, makes it easy to consume raw event data from a variety of sources in any size, format or velocity
- **Data Wrangling**, with hierarchical topic trees and **low-code** features, enables dynamic enrichment and transformation of data to suit the client applications and business logic
- **Data Distribution**, with a real-time event broker, enables reliable and efficient **data delivery** to millions of concurrent connections while reducing the bandwidth usage by over 90%

Security is an integral part of each of the three components. Diffusion offers fine grained role-based access control with security policies applied instantaneously to all connections. Authentication options include OAuth, JWT or custom authentication.

Low-Code Features of Diffusion are powered by Domain Specific Language (DSL), a declarative language, that enables **data wrangling** without having to modify the application software.

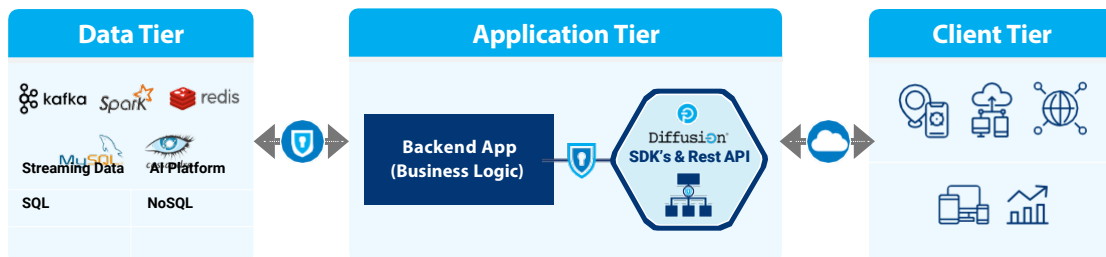
Communication Models supported by Diffusion include Publish-Subscribe and Request-Response using WebSocket based Diffusion SDKs, in all of the popular programming languages, or via the REST API.

Operational Models Diffusion is available to run on-premise, in-the-cloud (public or private), and in hybrid configurations.

DIFFUSION

How it Works

Diffusion operates in the application tier, typically with the backend application that orchestrates the business logic. Diffusion offers flexible deployment models to meet each organization's specific business and regulatory requirements – in-the-cloud, on-premise and in hybrid environments.



Consume	<ul style="list-style-type: none"> Includes pre-built Adapters for Kafka, MQTT, REST, Change Data Capture and more. Accommodates both streaming and static data sources. No restrictions on size, format or velocity of the data.
Enrich	<ul style="list-style-type: none"> Flexible hierarchical live data model presented as a topic tree. Massively scalable to millions of topics. Domain Specific Language for low-code data wrangling, such as data masking, data transformation, virtual topic trees, topic inserts, session topic trees, if then else conditional support, etc.
Deliver	<ul style="list-style-type: none"> Real-time event broker with support for Pub-Sub and Request/Response models. Massively scalable to millions of concurrent connections. Advanced client session management with automatic reconnect and recovery of session state and in-flight data. Ability to delay or throttle data to consumers. Intelligent queuing, conflation, compression and patented delta-streaming of data for up to 90% savings in bandwidth. Fine-grained role-based access control with security policies applied dynamically. Authentication options include OAuth, JWT or Custom.

DIFFUSION DATA

Diffusion Includes a Rich Library of SDKs

Java,
JavaScript,
.NET (C#),
Python,
Android,
Apple (S)

Award Winning Technology



Financial Services

“Using Diffusion derisks and simplifies our development. Diffusion reduces both complexity and development time for our user interface teams.

-David Bull, Director,
Baker Technology

eGaming in the Cloud

“We have seen a huge 73% savings in messaging with Diffusion - it greatly improves our data management and distribution efficiency, and our application performance. Plus we benefit from reduced network payload with Diffusion’s state-of-the-art data optimization and distribution technology.”

-Brian Alonso, Sr Software Engineer, Ganchrow Scientific

Financial Services in the Cloud

“With Diffusion we set up a completely cloud-based infrastructure delivering a very competitive cloud offering which allowed us to grow our business from start-up to high volume trading with minimal administrative effort or expense.”

- Philipp Roeben, Cofounder & CIO, Gratisbroker

Diffusion speeds Architecture development and simplifies ongoing operations. Creating an efficient, connected and fast-moving pipeline from source system(s) and data streams to application-ready data is complex and time consuming for developers. Diffusion does the work for you - to consume, enrich and deliver data across multiple environments to a wide range of data consumers -- in real time and at high volume.

Development Team Benefits:

- ✓ **Data Consumption Simplified** Diffusion captures raw source data using the platform’s Gateway adapters, saving development time and effort.
- ✓ **In-Flight Data Transformation & Enrichment Handled** Diffusion handles protocol translation, data enrichment, and payload conversion with its low-code data wrangling capability, to reduce development effort and assure consumers receive the exact data needed – every time, in real time.
- ✓ **Data Delivery Assured** Diffusion provides reliable, efficient delivery of the data required and permitted for each data consumer. In addition, incoming event data can be buffered if the rate of event production exceeds the capacity of a particular event consumer or consumers.

Business Benefits:

- ✓ **Security Maintained** Security is an integral part of the Diffusion platform with fine grained role-based access control via security policies applied instantaneously to all connections. Authentication options include OAuth, JWT or custom authentication.
- ✓ **Performance Guaranteed** Diffusion removes the operational burden that traditional polling and trigger-based data handling methods impose on source systems. You can eliminate costly/complex database instances, schemas and tables, older data integration infrastructure, and custom code, used in legacy architectures.
- ✓ **Scalability As You Need It** Diffusion easily scales to meet your ongoing business needs, be it the amount of data or the number of events that must be processed, or the number of consumers served.
- ✓ **Future-Proof Your Architecture** Reduce your CapEx and OpEx by using Diffusion to handle all of your data consumption, transformation, and delivery needs - today and tomorrow.

Get Started With Diffusion Today!

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