

Harness the power of IoT data

Powerful, real-time insights from connected devices and sensors

We are poised on the brink of immense connectivity: by 2020, the number of devices that connect to the Internet will total 21 billion. The Internet of Things (IoT) is fast becoming reality, and millions of sensors, devices, beacons, and other connected devices have resulted in the generation of huge, continuous, fast-moving streams of data, all from different sources. These data streams represent enormous possibility. By harnessing IoT data and the insights it can deliver, businesses can strengthen decision-making capabilities and improve operations and customer experience. The challenge, however, is capturing this highly distributed, diverse data while it is still in-motion and extracting valuable insights from it in real time.

Overcoming this challenge requires a production-ready, high-performance, stream processing solution, one that helps enterprises build IoT applications faster at lower cost and ingest and analyze data as soon as it is generated—all while maintaining zero downtime and protecting against data loss.

DATATORRENT DIFFERENCE

- **Fast time-to-market**
Build and productize IoT applications at blazing speed with lower cost of ownership
- **Enterprise-grade Scalability**
Future-proof scalability to meet any data needs
- **Predictive Analytics**
Real-time, predictive analytics on IoT data streams from connected devices
- **Easy Integration**
Ingest both data-in-motion and data-at-rest from a wide variety of data sources and stores such as Kafka, Flume, Hadoop HDFS, Cassandra, Hive, etc.
- **Flexible Deployment**
Flexibility to deploy either on-premise or in the cloud, while still benefiting from centralized management and monitoring

BUILD IoT APPLICATIONS FASTER, AT A LOWER COST

DataTorrent empowers businesses to ingest, transform, and analyze IoT data with ultra-low latency at Big Data scale. It's the industry's most highly performant, lowest-cost platform. With its dynamic scalability, high availability, and real-time monitoring and visualization tools, DataTorrent RTS offers powerful performance with easy operability, so you can focus on enhancing customer experience, optimizing business processes, and accelerating innovation. DataTorrent provides seamless integration with existing technologies, simplifying data ingestion from data sources like Kafka, HDFS, Flume and streamlining loading into data sinks like HDFS, Cassandra, MongoDB, Hive and many more.

The DataTorrent RTS platform provides:

- Comprehensive library of operators, including connectors for easy and fast application development
- Java-based platform with compositional and declarative APIs and SQL support for easy integration with any application
- Built-in fault tolerance, scalability, state management, and processing guarantees to let you focus on core business instead of operations
- Web-based management and monitoring interface to allow developers to closely monitor data pipelines and application performance
- Powerful monitoring via ready-to-use visualization tool to create interactive, customizable dashboards, allowing users to visualize output from applications in real-time

DATATORRENT TURNS CHALLENGE INTO OPPORTUNITY

Data drives opportunity. Make sure your business is poised to make the most of IoT data—to harness its power, unlock insights, and drive smarter decision-making.

IoT Challenges

The DataTorrent Advantages & Solutions

DATA SPRAWL

IoT-generated data comes from widely distributed data sources, at fast speed, and in different formats.

DataTorrent prepares your business to ingest and transform streaming data from millions of devices and sensors with single-digit millisecond latency.

COMPLEXITY

With so many devices and data sources, IoT is complex—and building IoT applications requires expertise.

Pre-built templates for such common data pipelines as HDFS to HDFS, Kafka to HDFS, and more, along with GUI-based drag-and-drop assembly, makes it easy for developers to build applications without writing code.

SECURITY

With billions of devices, security to protect user and enterprise data can be complex.

DataTorrent provides Kerberos, RBAC, and LDAP-based authentication and advanced multi-tenancy capabilities to safeguard your data and applications.

DATA LOSS

Vast number of IoT devices perform complex processes, making enterprises vulnerable to data loss.

End-to-end exactly-once processing semantics ensure no data loss and no duplicate data.

FLEXIBILITY

A flexible, real-time system that can scale and integrate with new technologies is critical.

DataTorrent seamlessly integrates with data sources like Kafka, HDFS, Flume and data sinks like HDFS, Cassandra, MongoDB, and Hive, among many more

BETTER DATA, BETTER BUSINESS DECISIONS WITH DATATORRENT RTS

With DataTorrent, businesses have an enterprise-grade, production-ready platform ready for a wide range of IoT use cases. Its platform is applicable to a wide range of industries and uses:



Industrial

Proactively detect and avoid equipment failure and eliminate downtime through real-time predictive maintenance. Improve production efficiency and customer responsiveness with real-time monitoring and tracking of temperature, pressure, voltage, and raw materials.



Retail and E-commerce

Enhance shopper experience, build loyalty, and grow sales revenue by sending personalized offers at the right time through the right channel.



Utilities

Improve grid reliability, load balancing, outage management, communications, and customer experience through the use of smart meters and smart grids.



Healthcare

Use IoT-enabled medical devices to get early diagnoses and improve patient care and outcomes. Better manage throughput and resolve bottlenecks using tag devices such as wrist bands and employee IDs.



Oil and Gas

Monitor environment and performance indicators, pipelines, and refineries in real-time to improve asset uptime, prevent failures, and demonstrate safety and regulatory compliance.



Insurance

More accurately predict real coverage needs from actual performance: use telematics sensor data to monitor driver behavior and performance to create usage-based insurance premiums.



Buildings

Use data from building sensors to optimize energy usage, implement automated maintenance, reduce maintenance costs, and bolster security.



Agriculture

Detect soil moisture and plant growth to control water usage, predict fertilizer requirements, and optimize planning and harvesting.

SPEED YOUR TRANSFORMATION TO A DATA-DRIVEN BUSINESS

DataTorrent gives you powerful data ingestion and analytics capabilities to harness data and insights for decision-making—helping you capture opportunity and all the upside that comes with it.

Imagine what you could achieve with real-time, powerful data-in-motion ingestion and analytics.

[Download](#) the Sandbox, Community, Enterprise or Cloud version of the DataTorrent platform, and explore our difference today. Learn more about our products and solutions at www.datatorrent.com.