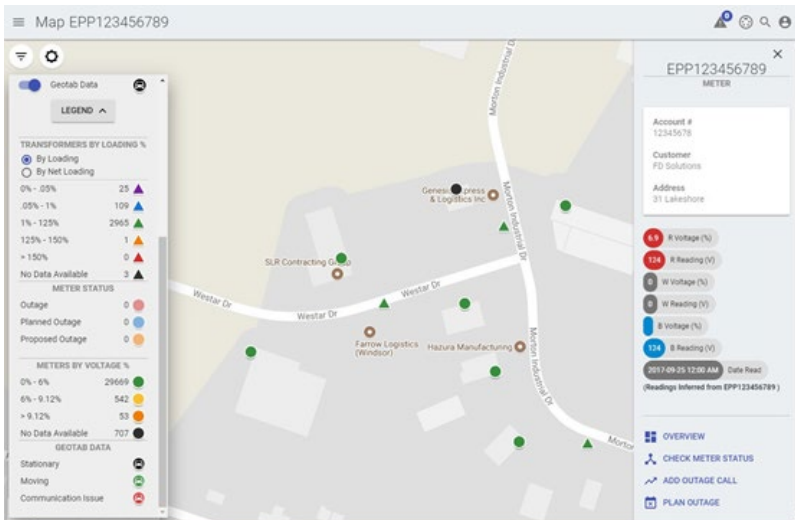# Accelerating Apps and Reducing Costs
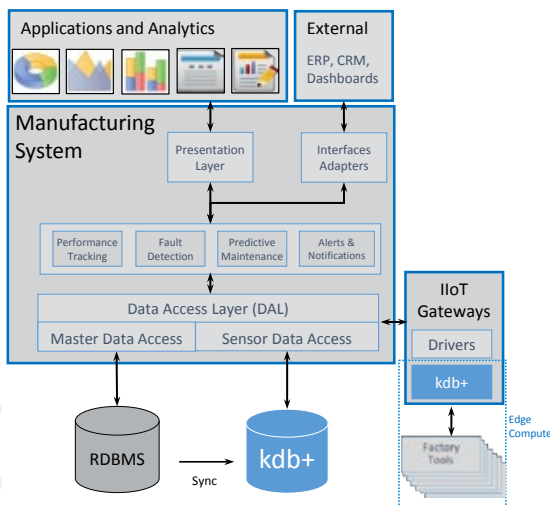
For Applications and Analytics

The Industrial Internet of Things (IIoT) is the concept of connected objects and devices, everything from manufacturing equipment, automobiles, jet engines to smart meters. Many analysts predict that there will be over 20 billion connected devices by 2020.

The end result for companies is larger data sets and end users desiring access to information and with a faster turnaround.

Kx offers a platform that can integrate with existing applications to expand the current scale and performance required to deliver responsive analytics and solutions at significantly reduced total cost of ownership.

Give your solution a robust platform to leverage for unparalleled performance or incorporate multiple datasets for rich real-time analysis for optimizing business operations, customer engagement, and offering new services and products.
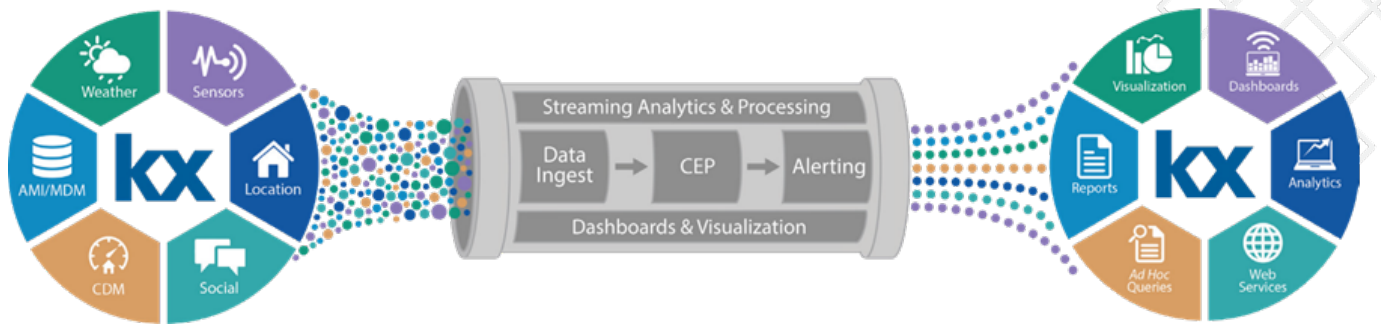

At a Glance

Enable radically superior offering with game changing performance, scale and functionality

Use Kx when facing the requirement for analyzing massive amounts of streaming (real-time) and historical data from sensors, devices, and other data sources.

The Kx Advantage

- Modular tools for data processing, storage and analytics

- Bring big and fast data to your existing and new Industrial IoT applications

- Ingests, validates, estimates, filters and cleanses streaming real-time and batch data using vector and parallelized algorithms

- Powered by a bitemporal data model with rich analytics

- Supports any sensor measurement, frequency, tags and attributes with nanosecond precision

- Scales to support millions of sensors, and trillions of records

- Event processing, calculations, aggregations, alerting and reporting

- Enterprise features, multi-tenancy, security, auditing, logging, automated storage tiering, on-line archive, and compression

- Deploy on premises or in the cloud, across multiple storage technologies

Big & fast data from any source
Ingest, process & publish
Send to any output in real time with Kx

Partner for Scale

- Use Kx to scale existing applications
- Augmentation approach
- OEM partner program
- Certified training program
- Proven expertise in big data management

Kdb+

- World's fastest time-series database
- Vertical and horizontal scalability
- Cloud, on premises, or edge
- Multi-tenant support for SaaS applications
- Machine learning

Integration

- Integrate with legacy systems and multiple data sources
- Augment or replace existing historian
- Extend and customize data analytics application to support unique requirements

Use Cases

- Connector framework to integrate with IT/OT systems;
- SCADA, AMI, MDM, OMS, ADMS
- MES, ERP
- Fault prevention, predictive maintenance

Ingest and Store

- Ingest & validate
- Estimate, correct, edit, transform & derive
- Store, update & version
- Any sensor data & derivatives (calculated)
- Reference & other data
- 30+ million readings per second per CPU

Process and Analyze

- Calculations, aggregations, queries on the fly
- Streaming & historical data
- Rich joins, analytics & functions
- Use for real-time control
- Terabytes to petabytes
- 30+ GB/s per node

Retrieve and Publish

- Reports & visualizations
- Queries & retrievals
- Alert, notify & control
- Ad-hoc & scheduled
- Export to files & systems
- Low latency µs & ms response

Manage System and Data

- Compression & tiering
- On-line archive
- Extensible with rich API's
- Logging & auditability
- High availability, resiliency & disaster recovery
- Entitlements and access control

About Kx

Kx has been the software leader for complex analytics on massive-scale streaming data for over two decades. The Kx technology is an established and trusted standard for trading, surveillance and research in financial services. Kx has emerged as the elegant, integrated solution to the analytic needs of the Pharma, Retail, Telecommunications, Utilities and High Tech Manufacturing industries scaling effortlessly to the data challenges of the Internet of Things.

Kx is a division of First Derivatives plc. Listed on the London Stock Exchange [FDP:LN] First Derivatives is a specialist software and consulting organization with a uninterrupted track record of customer success and profitable growth since it was listed in 2002.

Kx in Action

Visualize and Explore Data

- Dashboards for Kx
- Analyst for Kx

Control, Deploy & Monitor

- Control for Kx
- Streams for Kx
- Kx for Monitoring

Industry Solutions

- Finance
- Manufacturing
- Industrial IoT
- Semiconductors
- Telco
- Utilities

Contact us at sales@kx.com or visit www.kx.com