



it's about time



Kx for Telco

Real-time data processing and analytics for telecommunications

Telecommunications companies face challenges in processing massive data volumes arising from the multiplicity of devices connected to their networks and the usage patterns over a number of channels.

Kx helps telecommunications companies and their service providers harness all of their real-time and historical data for improved operations, enhanced customer engagement, and sale of new products and services. Kx provides enhanced situational awareness, service level monitoring and reporting, customer use analysis and product offers, all operating in real-time.



GG Plot: Pattern matching to identify potential issues

1855 cells plotted by minute (x axis):

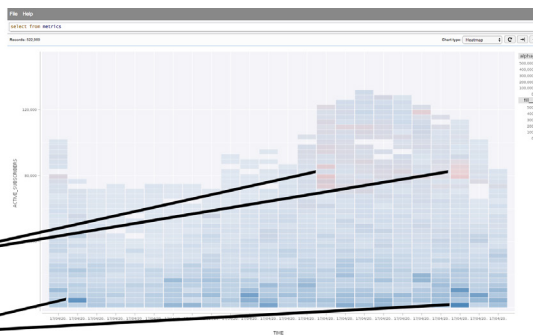
- subscribers (green)
- latency (red)
- congestion (yellow)

Visual Inspector

X: Time (24 bins)
 Y: Active Subscribers (50 bins)
 Color: Congestion (red is more)
 Alpha: Latency (darker is more)

Network is most congested at 2:00 PM and 9:00 PM

Why is there a lot of latency with few subscribers at these times?



Kx enables the correlation of data across an entire telecom network, including call detail records, core network data, radio access network data, user-plane data, and location service records, at unprecedented speed and scale.

With a rapid application development environment and a real-time complex event processing engine, vector and parallel validation and estimation algorithms, Kx enables new processes and analytic applications to be rapidly developed, tested and deployed.

Kx for Telco can be deployed on premises, or in the cloud.

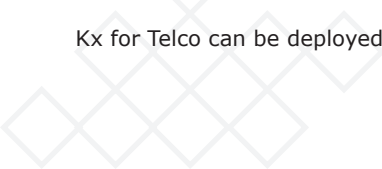
At A Glance

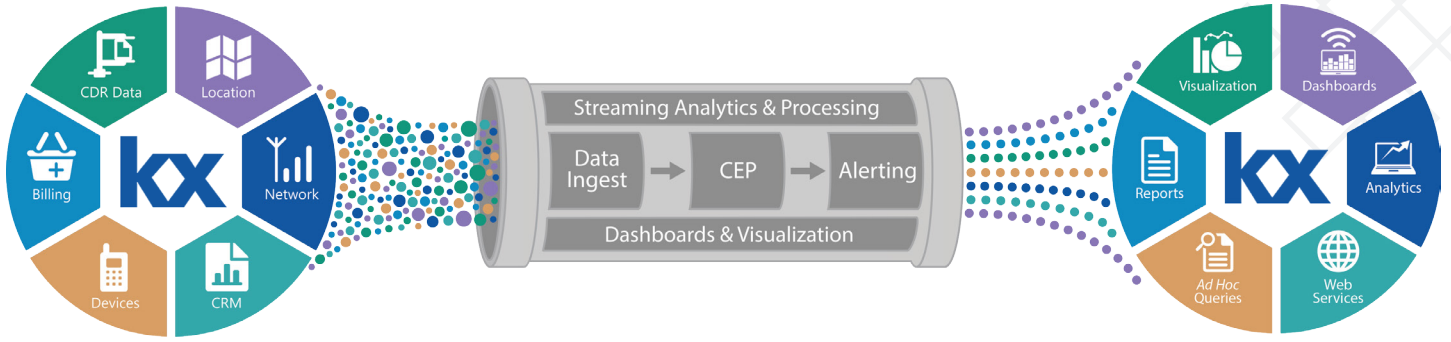


Kx for Telco is an integrated platforming for ingesting, processing and analyzing massive amounts of streaming (real-time) and historical data from networks, devices, and other data sources, to support operations, service level management, state and performance propagation, fraud detection, and billing.

The Kx Advantage

- One single, integrated platform for network and customer data analytics not a collection of incompatible tools and loosely coupled projects
- Analyzes network data 10s to 100s of times more quickly than alternatives for competitive advantage and lower TCO
- Enables real-time state and performance information aggregation, propagation, complex event processing and alerting
- Ingests, validates, estimates, filters and cleanses streaming, real-time and batch data, using vector and parallelized algorithms
- Supports any state, event type, attribute, message, and frequency
- Scales to support hundreds of millions of network nodes and objects, trillions of records, while maintaining performance
- Enterprise features, multi-tenancy, security, auditing, and compression





Ingestion, Validation and Estimation

Rapidly ingests, validates and estimates raw device and network data according to business rules to delivery high quality granular and aggregated data for analytics, operations and billing.

Supports ingesting data streams and flat files and hundreds of thousands and millions of records per machine core, enabling operators to get a consolidated view of their network in seconds.

Analytics and Actionable Insight

Analyzes and aggregates data from network devices, call patterns, routing statistics, transaction activity, to propagate state and performance information, identify non-standard events, filter noise, and make predictions based on the data streams.

Extreme Performance and Scalability

Provides the performance you need at any scale, from thousands to hundreds of millions of network devices and nodes, with any measurement frequency.

Support thousands of concurrent time series queries involving trillions of rows of data, and analytic performance that is orders of magnitude faster than alternatives.

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, 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 un-interrupted track record of customer success and profitable growth since it was listed in 2002.

Security and Enterprise Grade

Hardened for the enterprise with reliability, availability and security built in.

Situational Awareness and Visibility

Improves situational awareness of assets, networks and services by analyzing, correlating and visualizing data from network devices, sensors and events in real time, generating alerts and triggering business process actions.

Makes data and analytics available to authorized users, systems and customers through mobile, web and APIs on demand.

Applications and Use Cases

Rapidly detects faults and manage service levels using our complex event processing and real-time analytics.

Detects non-standard and potentially fraudulent use of network resources by executing pattern matching algorithms against usage and network event data.

Enables personalized promotions and advertising by combining subscriber location, usage patterns, demographic, and life events.

Enables dynamic time-of-use service and on-demand pricing to stimulate service usage and better utilize network resources by leveraging our real-time aggregation capabilities.

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
 - Surveillance
 - Algo
 - Flow
- Pharma
- Utilities
- Manufacturing

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