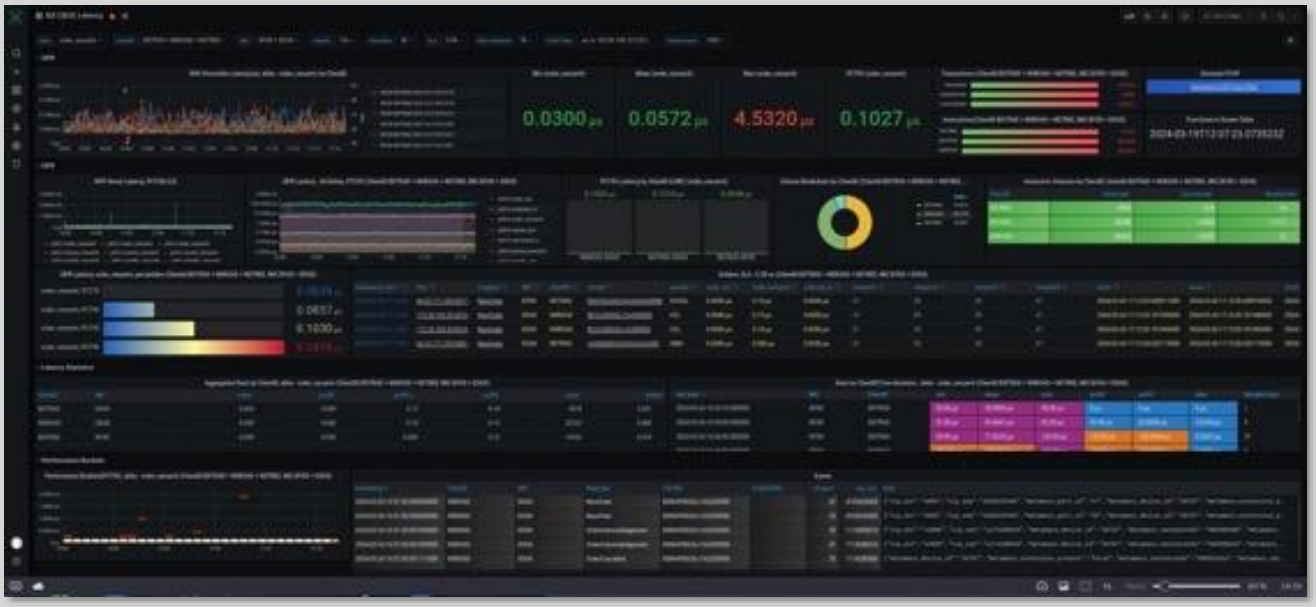
PRODUCT BROCHURE



Real-Time Trading Infrastructure Performance Monitoring and Analytics with xMetrics®

Maximizing trade quality and market opportunity

KEYSIGHT

instrumentix
the evolution of flow monitoring

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Introduction

What is Real-time Trading Infrastructure Monitoring and Analysis (RTIMA)?

Real-time trading infrastructure monitoring and analysis (RTIMA) is the process of capturing, decoding and understanding the network traffic that contains orders, trades and market data within an electronic trading environment. This involves monitoring the interactions between and within trading systems, exchanges, brokers and networks to ensure that orders and trades are executed correctly and efficiently.

Why is RTIMA increasingly important?

In today's fast-paced electronic trading world, financial institutions face pressure to meet more demanding regulatory standards, deliver best execution, and maintain transparency. RTIMA, with its multi-platform reach, helps with:

- **Compliance:** Ensures adherence to market regulations (MiFID II, SEC 606)
- **Transparency:** Provides visibility into order lifecycles from submission to execution
- **Performance Optimization:** Identifies network or application issues that might impact latency or execution quality
- **Risk Mitigation:** Helps detect anomalies like market abuse or operational errors that can lead to costly losses

Who needs RTIMA and why?

RTIMA is critical for a variety of financial market participants, including:

- **Sell-Side Firms:** Brokers and dealers who execute trades on behalf of clients, optimizing execution performance and delivering differentiated service offerings.
- **Buy-Side Firms:** Hedge funds, asset managers, and institutional investors monitoring their own trading activities to enhance execution performance and trading strategies.
- **Exchanges and Trading Venues:** For monitoring order flow and ensuring market stability whilst maintaining operational efficiency and market integrity.
- **Compliance Teams:** Ensuring adherence to internal policies and external regulations to mitigate regulatory and operational risks.
- **IT & Network Teams:** Monitoring infrastructure and trading systems to ensure they are optimized and efficient, with application support to resolve any performance issues.

Introducing xMetrics®

xMetrics® is a cutting-edge flow monitoring software solution, designed by ex-investment banking and venue technologists to provide unparalleled visibility and control over trading activities. Originally developed by Instrumentix and now fully supported by Keysight, xMetrics delivers comprehensive, real-time insights into every stage of the trade life cycle.

With its highly modular and scalable platform, xMetrics® can be deployed across a variety of environments, including Keysight's V400 network packet brokers, high-performance capture appliances, or standard servers. Its flexibility ensures seamless integration into both new and existing infrastructures - overcoming the complexities and costs that were once barriers to effective trading infrastructure monitoring.

xMetrics® goes beyond flow trade monitoring by offering deep insights and the ability to integrate seamlessly with legacy systems. This allows clients to maximize their previous investments while benefiting from market-leading data analytics, real-time trade flow instrumentation, and visualization capabilities.

Accessible to firms of all sizes, xMetrics® provides affordable, global trading environment instrumentation, making it the go-to solution for modern trade monitoring and analysis.

xMetrics® key features and benefits

At the heart of xMetrics® is a software engine that generates rich business and technology data. It tracks, alerts on, and stores for later analysis any trade transaction – such as Ticks, Quotes and Orders - across all tiers in real-time. All with no impact to production flow. It supports multiple asset types. Key features and benefits of include:

- **Unparalleled Scalability:** Deploys seamlessly into environments that were previously too complex or costly to monitor, ensuring flexibility and scalability for firms of all sizes
- **Complete Multi-Hop Visibility:** Via its unique mutations framework, provides end-to-end visibility of every order and market data tick, independent of protocol changes, delivering insight that traditional networking or single-system monitoring tools cannot achieve
- **Advanced Correlation & Root Cause Analysis:** Offers powerful analysis of complex one-to-many relationships, allowing for rapid identification of issues and the summarization of critical events
- **Data Enrichment:** Integrates with external data sources to enrich captured data, offering deeper insights into trading performance and market behavior
- **Real-Time Alerting:** Delivers powerful, real-time alerts on both summary and per-transaction levels, including derived data, enabling immediate action on potential issues
- **Instant Issue Identification:** Pinpoints issues including market data, execution, network, application, or hardware components that could impact performance, customer experience, or regulatory compliance
- **Bespoke Data Sets & Visualization:** Enables customized data sets, analysis, and visualizations for segregated user groups, creating opportunities for value-added services for third-party clients
- **Forensic Traffic Replay:** Replays captured traffic to analyze market or system issues after the fact, aiding in root cause determination and back-testing for performance improvements
- **Broad Integration:** Supports integration with leading ISV applications, such as ION Marketview, Horizon, and Fidessa, maximizing system compatibility
- **Comprehensive Exchange and Asset Class Support:** Monitors trading activities across most exchanges, venues, and asset classes, offering universal applicability
- **Eliminates Data Silos:** Provides open access to all data, resolving “islands of data” issues. xMetrics® streams rich data into customer systems via a public protocol specification or standard interfaces
- **Flexible Deployments:** Runs on commodity hardware, Keysight packet brokers, or specialist capture appliances, minimizing costs, data center space, and hardware constraints
- **Multicast Market Data Feed Monitoring:** Monitors the quality of multicast market data feeds, ensuring accurate and reliable information
- **Seamless FPGA Integration:** Integrates with Keysight’s FPGA-based gap detection capabilities (TradeStack), freeing up CPU resources for more complex monitoring tasks

xMetrics® is available as both a managed and a self-managed offering. In a managed deployment Keysight are responsible for set up, ongoing configuration and pro-active management. With self-management the end user is responsible for set up, configuration and management. In both cases the xMetrics® is provided as a yearly subscription.

Use Cases

xMetrics® can be applied across multiple critical use cases within trading environments, helping firms maintain performance, meet compliance, and optimize execution. Common use cases include:

- Application and network latency monitoring
- Order/Algo search
- Status monitoring
- Market data monitoring
- Unicast traffic monitoring
- Compliance
- Execution venue latency statistics

Looking at each of the above in turn:

Application and network latency monitoring

Achieving a competitive advantage requires a deep understanding of how technology impacts trading performance. By correlating multi-hop messages across the network, infrastructure, and application tiers, xMetrics® provides real-time visibility into how each tier affects end-to-end performance. This identifies the root causes of latency and Trading Ops teams to focus efforts for the highest ROI. Traditional network tools only measure latency across flat networks made of switches and routers, leaving blind spots when applications are present. xMetrics® goes further, measuring true end-to-end trade path latency across complex, multi-hop environments, enabling comprehensive latency analysis that includes both network and application layers.

A key feature of xMetrics® is its ability to manage multiple protocol transitions that occur as orders pass through systems such as Order Management Systems (OMS), Smart Order Routers (SOR), and Market Gateways. For example, client orders introduced via FIX protocol on the client-side are transformed into native exchange protocols on the market-side. xMetrics® seamlessly correlates these different message types to provide a complete view of the trade lifecycle. Even when different systems use varying data formats, xMetrics® can match and correlate these fields. Whether it's translating RIC codes into exchange-native symbol indexes or converting price data from floating-point numbers to integers, xMetrics® ensures that orders can be tracked and analyzed. An example of a field format 'challenge' is shown below.

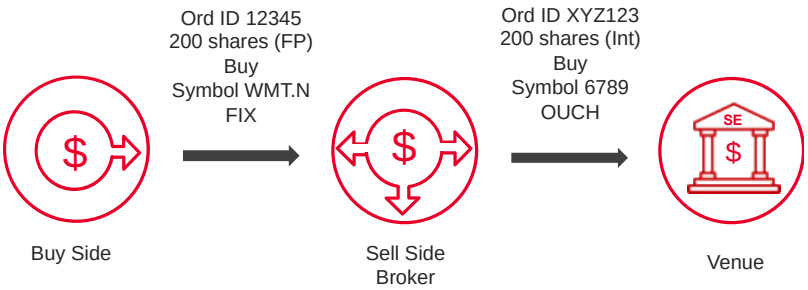

Figure 1. Challenge of order "signatures"

To reliably match an order with its acknowledgments and fills, multiple fields are required to create a unique “signature.” This process must occur in real time, across a large number of fields, especially when handling child orders where amendments, fills, and cancellations need to be tracked. The challenge is magnified as orders pass through multiple stages—each with its own signature variation—on their journey from the buy-side to an execution venue. At every "hop" in the trading infrastructure, from points A to E in the diagram below, signature matches must be performed to provide a complete view of end-to-end trade latency. This complexity makes it crucial to have a solution capable of efficiently correlating these fields across every stage of a transaction. More complex trading architectures can have tens of hops.

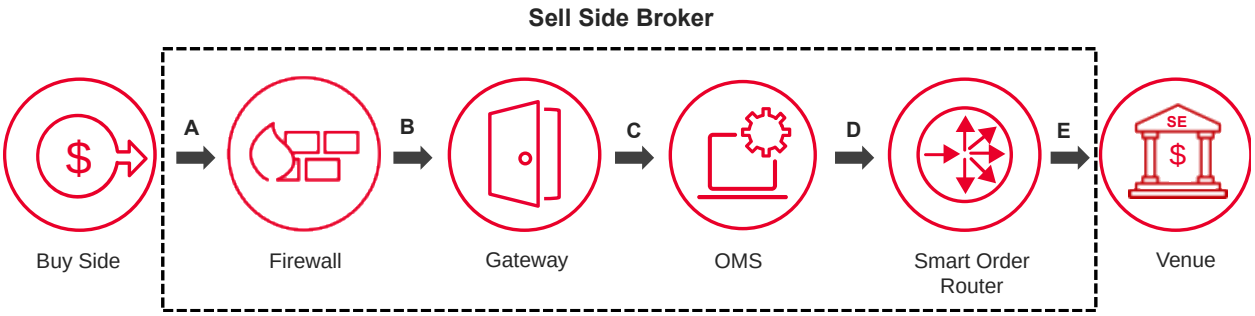

Figure 2. More complex order matching challenges

xMetrics® was developed by senior trading technologists with deep expertise in electronic markets. As a result, it comes out-of-the-box with the ability to transform any field in real time—across multiple points in the matching process—ensuring that even the most complex, multi-hop transactions are accurately matched for precise execution performance measurement. With xMetrics®, firms can easily analyze multi-hop performance across tiers, reconstruct the entire trade lifecycle, and receive real-time alerts. This allows immediate identification of affected symbols, buy-side clients, or execution venues when latency degradation occurs, helping firms maintain peak performance and regulatory compliance.

The key capabilities for latency measurement with xMetrics® are:

- **Multi-Hop Latency Monitoring:** Achieves 1-nanosecond precision across multiple hops, with transformation capabilities and comprehensive statistics on both current and historical data
- **Instruction Volumes and Fills per Client:** Track trade volumes and fills by client, MIC, or destination for detailed performance insights
- **Outlier Detection and Drill-Down:** Identify and investigate outliers with full order lifecycle visibility, ensuring no critical details are missed
- **Comprehensive Trade Metrics:** Monitor key metrics such as volumes traded, value traded, fill ratios, open orders, and moving averages
- **Customizable Breakdowns:** Analyze data by any field or enrichment field of interest, including symbol, client, AlgoID, order type, or application tier/group
- **Data Enrichment:** Leverage in-memory and disk-based lookups to enrich data with key metadata and contextual information
- **Detailed Statistics:** Access a full range of statistics, including minimum, mean, maximum, median, standard deviation, and arbitrary percentiles
- **Flexible Alerting:** Set up customizable alerts for any data point to ensure real-time monitoring and timely responses

Latency Statistics, Delta : order_venuertt

[[selector]]	Min	Max	Mean	50th Percentile	95th Percentile	98th Percentile	99th Percentile
MM_CSNA	0.982 ms	2.342 ms	1.458 ms	1.292 ms	2.136 ms	2.206 ms	2.274 ms
MM_CSAN	1.038 ms	2.690 ms	1.540 ms	1.380 ms	2.349 ms	2.509 ms	2.599 ms
MM_CPLE	1.009 ms	25.220 ms	2.166 ms	1.781 ms	2.618 ms	6.165 ms	18.872 ms
MM_COGN	1.103 ms	24.575 ms	3.044 ms	2.958 ms	4.609 ms	4.915 ms	5.054 ms
MM_CMIG	1.098 ms	22.027 ms	2.439 ms	1.927 ms	3.239 ms	4.443 ms	13.235 ms
MM_CIEL	1.065 ms	4.057 ms	2.221 ms	2.279 ms	3.424 ms	3.766 ms	3.912 ms
MM_CCRO	1.003 ms	5.128 ms	1.720 ms	1.436 ms	2.793 ms	3.025 ms	4.077 ms
MM_CASH	0.917 ms	5.040 ms	1.866 ms	1.618 ms	3.104 ms	3.396 ms	4.025 ms
MM_BRML	1.108 ms	15.321 ms	2.346 ms	1.968 ms	3.670 ms	5.852 ms	9.693 ms
MM_BRKMS	0.961 ms	9.336 ms	1.939 ms	1.298 ms	3.291 ms	6.827 ms	8.273 ms
MM_BRFS	1.063 ms	10.409 ms	2.454 ms	2.279 ms	3.509 ms	7.042 ms	9.947 ms
MM_BPAN	1.185 ms	3.536 ms	2.460 ms	2.536 ms	3.413 ms	3.461 ms	3.499 ms
MM_BPAC	1.074 ms	101.891 ms	3.337 ms	1.993 ms	2.969 ms	3.919 ms	27.166 ms
MM_BOVV	1.114 ms	7.992 ms	2.269 ms	1.910 ms	7.722 ms	7.885 ms	7.901 ms
MM_BOVA	0.988 ms	550.631 ms	81.850 ms	2.440 ms	550.075 ms	550.358 ms	550.438 ms
MM_BEEF	1.138 ms	3.777 ms	2.391 ms	2.385 ms	3.642 ms	3.708 ms	3.740 ms
MM_BBSE	0.942 ms	6.633 ms	1.959 ms	1.876 ms	2.696 ms	4.124 ms	5.378 ms
MM_BBDC4	1.036 ms	19.454 ms	2.433 ms	1.928 ms	6.181 ms	7.820 ms	11.017 ms
MM_BBDC3	1.046 ms	11.088 ms	2.110 ms	1.449 ms	5.364 ms	10.791 ms	10.940 ms
MM_BBAS	0.939 ms	28.056 ms	3.582 ms	2.750 ms	9.672 ms	15.186 ms	20.277 ms
MM_B3SA	1.085 ms	35.213 ms	3.454 ms	1.968 ms	16.175 ms	29.573 ms	30.903 ms
MM_AZUL	1.050 ms	2.699 ms	1.578 ms	1.316 ms	2.396 ms	2.497 ms	2.598 ms

Figure 3. Table showing key Round Trip Delay latency measurements for a selection of instruments, with Min, Max, Mean 50th, 95th, 98th and 99th percentiles shown

Order/Algo search

In the event of a failed or poorly executed order, xMetrics® enables users to investigate the progression of orders across the trading infrastructure, answering critical questions like, “Where did things go wrong?” and “What caused the excessive latency?”

Key capabilities for searching individual orders include:

- **Customizable Search Dashboards:** Access standard and fully customizable search interfaces tailored to your specific needs
- **Flexible Search Options:** Search using any field with the ability to view both individual instructions and entire order chains for comprehensive insights
- **High-Performance Data Retrieval:** Fast results retrieval and export, powered by advanced DataStores such as TimeScaleDB and ClickHouse. Traditional APIs are also available for accessing trade flow data
- **Real-Time Event Streaming:** Benefit from Drop Copy-like event streaming regardless of source protocol, with the ability to consume directly from xMetrics via Kafka topics
- **Comprehensive Trade Metrics:** Monitor volumes traded, value traded, fill ratios, open orders, and moving averages, combined with statistical analysis for deeper insights
- **Compliance Status:** View real-time compliance status for venue-mandated rules, such as market maker obligations or session availability

Status monitoring

xMetrics® ensures that both physical connectivity and application layer logins to critical venues or order routing vendors are fully operational.

Key capabilities include:

- **Network Layer Health Monitoring:** Leverage state packets (SYN, SYN/ACK, FIN, RST) to monitor the health of physical connections in real-time
- **Application Layer Health Monitoring:** Monitor venue-specific messages (e.g., “Login” and “LoginResponse” for NYSE) to ensure the application layer is functioning correctly
- **Comprehensive Connection Coverage:** Supports both client-side (often FIX) and market-side (non-FIX) connections, providing complete visibility across the trading infrastructure
- **Multi-Hop Visibility:** Track the health of every network segment, exposing both network and application layer states at each hop along the route to the venue

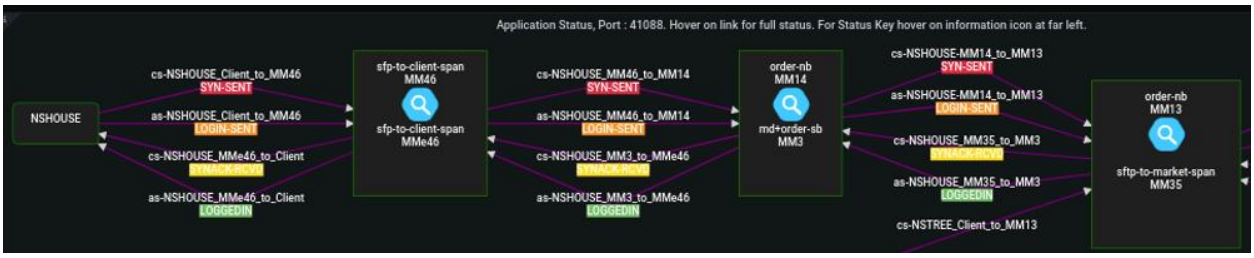

Figure 4. Part of a status diagram showing access to NYSE Pillar system

Market data monitoring

In modern electronic trading, the transmission and reception of vast quantities of market data are critical. To optimize low latency and high throughput, many execution venues use UDP multicast instead of TCP, which is more vulnerable to packet loss and can quickly degrade trade performance. xMetrics® provides robust capabilities to monitor, protect and analyze critical market data feeds.

Key capabilities include:

- **One-Way Latency Monitoring:** Measure latency between the venue and client edge using the venue's timestamp from the payload
- **Comprehensive Gap Detection:** Monitor all channels with full metadata for affected ticks, integrating v400 TradeStream protocol or TradeStack native capabilities for high-throughput feeds
- **Bandwidth Measurement:** Perform aggregate and per-channel bandwidth measurement, ensuring detailed traffic insights
- **Microburst Detection:** Measure microbursts (bytes and packets) in both aggregate and per-channel, enabling early detection of network performance issues
- **Multi-Hop Latency Monitoring:** Track latency across multiple hops in market data distribution, ensuring full end-to-end visibility
- **1 ms Traffic Sampling:** Capture 1 ms traffic samples in both directions for precise monitoring, with optional 1-second statistical summaries (min, mean, max, median, stddev, arbitrary percentiles)
- **Data Enrichment:** Enrich data with key metadata and context through in-memory and disk-based lookups for deeper insights
- **Packet Loss Detection:** Identify gaps in UDP-based feeds (packet loss) and retransmissions in TCP-based feeds (packet loss)
- **Real-Time Alerts:** Set up alerts (syslog, email, Kafka, socket sink) with full metadata for gaps, bandwidth spikes, and traffic anomalies

Unicast monitoring

While UDP multicast is essential for market data distribution, TCP unicast plays a critical role in order flow transmission, facilitating communication from the buy side to the sell side, from the sell side to execution venues, and within internal systems. Any network issues in this infrastructure can degrade trading performance and cause difficult-to-diagnose system problems. xMetrics® offers advanced visibility into TCP/IP performance to ensure smooth operations.

Key capabilities (beyond those already mentioned for multicast monitoring) include:

- **TCP Behavioral Analysis (Connection):** Track critical events like SYN, FIN, and RST to assess network health
- **TCP Behavioral Analysis (Health):** Analyze retransmissions, out-of-sequence packets, zero-window issues, and duplicate acknowledgments to identify performance bottlenecks
- **Session Enrichment:** Enrich data with metadata to show affected client trading sessions for more precise diagnostics
- **Aggregate Behavioral Stats:** Summarize key metrics including retransmissions (RTR), out-of-order packets (OOO), and duplicate acknowledgments (DupAck) for deeper analysis
- **Packet Loss Identification:** Detect retransmission requests, helping to quickly identify and resolve packet loss issues
- **Microburst Detection:** Measure microbursts at 1-ms intervals to prevent network congestion that could impact order flow

Compliance

In the EU and UK, MiFID II regulations require the precise recording of all messages and events throughout the lifecycle of an order and the reporting of executed transactions. Transmission, receipt and modification of orders and decisions to trade need to be accurately timestamped and made available to regulators. This data must be either continuously accessible or on demand historically for up to 5 years. The top level MiFID II requirements cascade down to individual RTS (Regulatory Technical Standards) requirements and cover such areas as the maintenance of data, reporting of transactions, quality of execution and system clock accuracy.

Within the USA, FINRA Rule 4511 mandates that copies of all 'communications' (regardless of media) related to a broker dealer's business be retained for a minimum of 7 years. Meanwhile Rule 6820 mandates that market participants synchronize their system clocks to within 50 mSec of NIST UTC time and retain proof of synchronization for up to 5 years. SEC Rule 606 also mandates execution quality information.

The xMetrics® platform provides a fully independent and integrated solution for the capture of all application network and transaction data required for RTS and FINRA reporting, evaluation and storage. xMetrics® can be easily deployed across a distributed execution environment and utilize an existing traffic capture fabric, removing the need to overhaul internal IT infrastructures. Due to its modular nature, only a reduced footprint is often needed at remote sites, facilitating extremely cost-effective and rapid implementations. For new deployments, Keysight can provide a total solution using optical taps, packet brokers and tap aggregators and xMetrics®. TimeKeeper can also be used to not only synchronize xMetrics® and other system clocks, but also to gather time synchronization statistics. A typical architecture may be seen below:

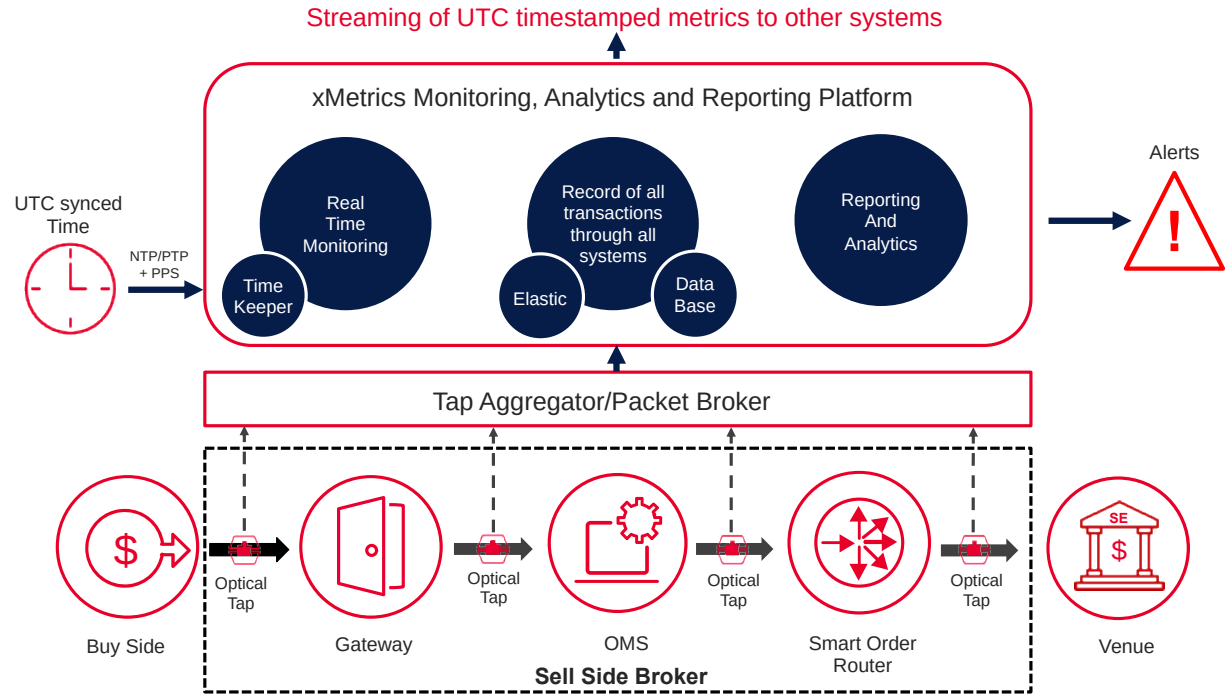

Figure 5. Keysight total solution for Compliance showing optical taps, packet brokers, xMetrics and TimeKeeper

Execution venue latency statistics

Execution venues are increasingly providing their clients with detailed latency statistics, not only showing total latency from order receipt to its inclusion in the outbound market data feed, but also breaking down the latency to individual components such as gateways, matching engines and ticker plants. For example, Deutsche Borse, publishes extensive statistics showing the latency of various subsystems of Xetra and Eurex under changing traffic levels. This is part of an overall strategy to be transparent on exchange performance and help users (especially High Frequency Traders) understand the mechanics of trading and optimize their trading strategies. The xMetrics® platform can be used by execution venues to derive, collate, store and analyze latencies across these subsystems. This information can then be disseminated in reports or in real time to the users of the execution venue. By providing transparency into latency, venues can help their clients make data-driven decisions to enhance their trading efficiency and increase order flow.

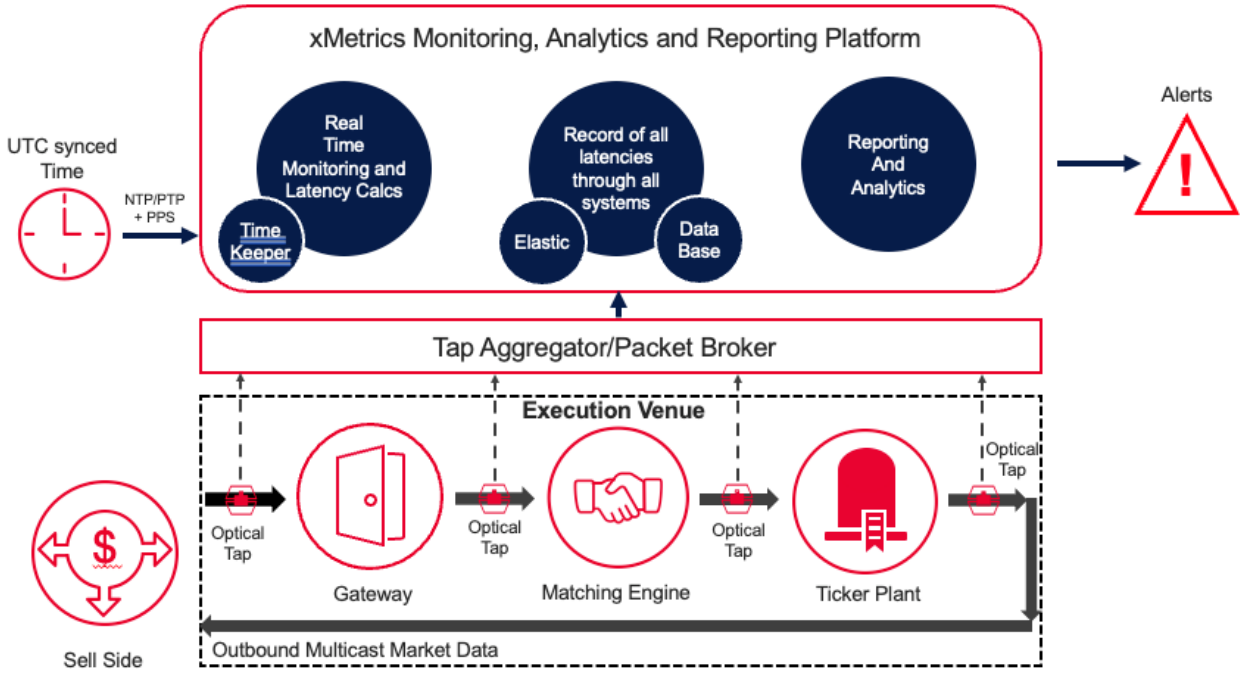

Figure 6. Keysight total solution for Execution Venue latency measurement showing optical taps, packet brokers, xMetrics and TimeKeeper

xMetrics Components

xMetrics® consists of a range of core components that are used to build overall trading infrastructure monitoring and analysis solutions. Customers select the appropriate mix of components to build the solution to their requirements meaning they only pay for the what they actually need.

Capture and decode

xMetrics® captures real-time network traffic from key trading components such as Feed Handlers, Order Management Systems, and Smart Order Routers. Typically, this traffic is collected via optical taps and network packet brokers/tap aggregators. The xAgent component is responsible for traffic acquisition and decoding, with a protocol stack that includes:

- **FIX** – used to decode FIX execution and market data traffic
- **Fixed Width** – Handles fixed width protocols using decoders created using XML configuration, requiring no additional developments
- **Custom/Bespoke** – requires C++ development resource and can be written by Keysight or the client
- **Hasher** – Provides monitoring without decoding the payload using hashed signatures

Correlation

At the heart of xMetrics® is xMaster a highly powerful correlation engine designed to handle the complex, nonlinear relationships inherent in today's trading platforms. It matches decoded events received from the xAgent to create transactional models that track performance across complex environments.

Summarization

xReporter summarizes transactions from xMaster over configurable time periods (like 60 seconds for execution data, or 5 seconds for market data). xReporter aggregates data across multiple dimensions such as gateway, trader, and symbol. It generates rich statistics—min, max, mean, median, standard deviation, (jitter; critical for measuring performance determinism) and arbitrary percentiles—as well as metrics like message rates and bandwidth.

Network measurement

In addition to the rich application performance information, xMetrics® also measures network performance for each trading or market data activity. These are measured in both directions in order to create metrics such as bandwidth, traffic rates, packet rates, and microbursts. Furthermore, the system also exposes TCP behavior anomalies such as retransmission and zero-window errors helping users identify and resolve performance bottlenecks quickly.

Enrichment and transformation

xMetrics® enables powerful data enrichment and transformation through its Mutations Framework. Users can enrich captured data with external sources and introduce User Defined Functions (UDFs) to manipulate or transform data. This powerful feature allows for complex operations, such as rewriting symbology, performing mathematical calculations on data fields, or enriching fields with metadata. The framework supports seamless multi-hop instrumentation across distributed trading environments, addressing use cases that traditional solutions cannot.

Persistence

xMetrics® offers flexible, long-term data storage. All business transactions, summary metrics, network details, and raw decoded events are written to supported datastores, including ElasticSearch, InfluxDB, Clickhouse and TimescaleDB. Persistence is configurable, allowing different types of data to be stored for varying durations—for example, execution data can be retained for years, while market data or network performance data may only need to be kept for days or weeks. Access to the data is provided through JDBC, Elastic APIs, or InfluxQL, making it versatile for different user needs.

Alerting

xMetrics® provides adaptive alerting, covering business data (summaries, individual transactions, or events), network behavior (microbursts, bandwidth, retransmissions), and server health (e.g., CPU load, memory, disk utilization). The system supports legacy SLA/threshold-based alerts but also allows for more advanced, data-driven alerting scenarios. For example:

- Alerting when the current latency for a specific instrument exceeds the 95th percentile for the last hour.
- Notifying users when packet rates deviate by more than two standard deviations compared to the same period from the previous week.
- Triggering alerts for microbursts that coincide with TCP retransmissions and latency spikes in a monitored flow.

Visualization

The xMetrics® Genesis framework (based on Grafana) offers a multi-tenant visualization platform that allows users full control over the design of their dashboards. Genesis is primarily focused on presenting timeseries data but also includes real-time alerting and transaction search capabilities. Users can quickly search for specific quotes or orders based on any relevant criteria. Additionally, Genesis supports data injection from external sources, enabling users to integrate multiple datasets into unified, customized dashboards for enhanced analysis.

BI reports & report editor

With the BI Reporting option, xMetrics® enables users to create in-depth, customized reports using all available data. Reports can be parameterized, scheduled (e.g., intraday or end-of-day), and exported in formats such as PDF, HTML, or images. The built-in Report Editor—available on Windows, Linux, or Mac desktops—provides users with a rich interface for designing and automating report generation. These reports can be delivered via email to key stakeholders.

Platform

xMetrics® can be deployed on a variety of platforms including:

- Generic servers
- High performance packet capture devices from FMADIO or Endace
- Keysight's V400 network packet broker
- Public and Private cloud environments

Specifications

General

Description	
Country of Origin	United Kingdom
Software Version Supported	Alma Linux 8.X
Min. Hardware Platform	16 core CPU, and 64G RAM, 1T SSD
Typical Hardware Platform	2 x 24 core hyper threading or 96 core CPU, 256G RAM, 8 x 1T SAS drives 10k 12 GBPS

Ordering information (Provisional)

Part number	Name
Stand alone deployments	
SUB-XMET-CORE-SAT	xMetrics Satellite Software Engine (937-4000)
Bundles	
SUB-XMET-CORE-ESSENT	xMetrics Core Software Engine - Essential (937-4001)
SUB-XMET-CORE-PLUS	xMetrics Core Software Engine - Plus (937-4002)
SUB-XMET-CORE-ADV	xMetrics Core Software Engine - Advanced (937-4003)
SUB-XMET-CORE-PRO	xMetrics Core Software Engine - Pro (937-4004)
V400 integrated deployments	
SUB-XMV4-CORE-SAT	xMetrics Satellite Software Engine (937-4031)
Bundles	
SUB-XMV4-CORE-ESSENT	xMetrics Core Software Engine for V400 - Essential (937-4032)
SUB-XMV4-CORE-PLUS	xMetrics Core Software Engine for V400 - Plus (937-4033)
SUB-XMV4-CORE-ADV	xMetrics Core Software Engine for V400 - Advanced (937-4034)
SUB_XMET_EXTKAFKA_M/S	xMetrics® External Kafka Broker Support - only available on Advanced & Pro Plans
Additional options	
SUB-XMET-RSOCKET	xMetrics Remote Socket Support (937-4021)
SUB-XMET-BI	xMetrics Business Intelligence (937-4022)
SUB-XMET-3PDATA	xMetrics 3rd Party Data Support (937-4023)
SUB-XMET-EXTDB	xMetrics External DataStore Support (937-4024)
SUB-XMET-EXTKAFKA	xMetrics External Kafka Broker Support (937-4025)
909-5326	xMetrics (self-managed) Upgrade to Essential Support (937-4026)
909-5327	xMetrics (self-managed) Upgrade to Enterprise Support (937-4027)
SUB-XMET-MAN-SERVICE	xMetrics Managed Service (remote management of the implemented environment) (937-4028)
SUB-XMET-DECODE	xMetrics Regional Market Data and Execution Decoder Pack (937-4029)
XMET-PS-SERVICES	xMetrics Professional Service Fees (937-4030)

Support

Keysight's Visibility industry-best products are backed by our industry-leading expertise. Our comprehensive product support does more than ensure uptime – it ensures a competitive edge. The Ixia support team partners with customers to:

- Avoid downtime and keep schedules on track
- Implement according to industry specifications
- Develop best practices to meet individual needs and objectives
- Maximize efficiency and reduce operating expenses
- Protect and maximize investments in test and visibility

In addition to above, Keysight customers registering for the secure area and access to the Support Site will also be able to view and download our product Security Advisories.

Access Keysight Visibility Support

About Keysight Visibility

Connect and secure the world with dynamic network intelligence

The need for always-on networks is pervasive, and expectations are high when it comes to keeping them connected and secure. As technologies advance, edge computing, cloud environments, sophisticated security threats, increasing bandwidth requirements, and demanding compliance regulations make it challenging to extract actionable insight from your network.

Keysight can help. Customers rely on our solutions to deliver rich data about network traffic, applications, and users across any networking environment. This deep insight is what we call dynamic network intelligence. It helps you continuously innovate, meet aggressive service level agreements, and keep applications running smoothly and securely.

Learn more about Keysight Visibility Solutions