NetTradeWatch™

Monitoring high frequency trading networks

DATASHEET

Features & Benefits

- *Support for a wide variety of feed protocols including, but not limited to, MOLDUDP, CQS, TIBCO, ARCA FAST, CQLS, ITC-C, RLC, UQDF, FIX, etc.*
- *Sustains the competitive advantage through complete visibility into the trading network infrastructure from tick to execution*
- *Mitigation of risk by detection and alarming on critical transaction information, such as latencies, microbursts and packet loss*
- *Facilitates intelligent trading decisions by insight on timeliness of market data information received*
- *Analysis of multicast market data as well as trade transactions*
- *Independent and long-term storage of accurately timestamped transactions enabling auditing, trending and planning*

Challenge

Financial trading floors are highly dynamic, complex environments. Successful trading requires the completion of a transaction at lightning speed, with minimal delay and packet loss between the entry of market data into the trading floor and the final trade execution. Time is a significant competitive advantage, and microseconds can constitute wins or losses of millions of dollars. But latency is only one part of the equation. Trading networks should not only exhibit near zero latency, but also have high reliability and sustained availability. End-to-end monitoring of the trading infrastructure requires a solution that can both monitor and correlate the market data feed ingress to the trading complex and the trade execution egress, to the exchange for real-time monitoring of metrics related to performance of transactions.

Solution

NIKSUN® NetTradeWatch combines the capabilities of multicast data monitoring, delay measurements, and transaction analytics to provide 100% visibility into the trading network environment at any instance of time. The ability to analyze, report and troubleshoot both market data feeds and trade transactions makes NetTradeWatch a unique, invaluable monitoring solution for enterprise trading networks.

Market Data Feed Monitoring

Successful trading decisions are based on the availability of the most up-to-date market information. Market data received on the trading floor must accurately represent current market conditions and is highly sensitive to latency. Packet loss in this volatile environment is unacceptable. These factors make the monitoring of market data feeds extremely crucial.

Latency measurements must be extremely precise for a correct assessment of expected delay in the network. Market feed data should reach order routing systems with minimal delay. One-way delay measurements using NIKSUN's NetTradeWatch gives an accurate assessment of packet delay between any two points of the network, from the time of entry into the trading floor to the execution of a trade. Precise latency measurements are made by synchronizing clocks at the points at which the packets are timestamped.

NetTradeWatch continuously monitors multicast data feeds as they pour in from exchanges and alerts on gaps or out-of-sequence data feeds, proactively detecting any loss of mission critical information.

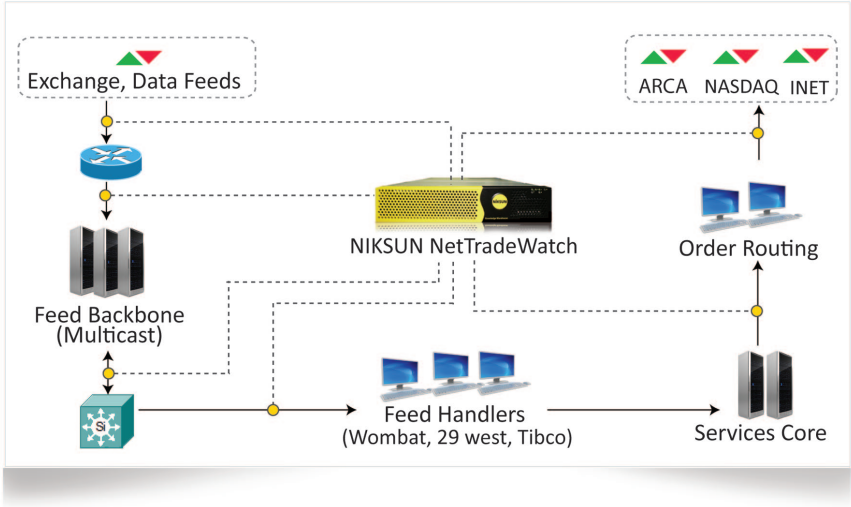
NetTradeWatch incorporates support for a wide variety of feed protocols, including MOLDUDP, CQS, TIBCO, ARCA FAST, CQLS, ITC-C, RLC, UQDF, FIX, etc., monitoring feeds across messaging technologies.

Retransmission of lost packets leads to link saturation in microsecond timeframes, causing further packet drops. The microburst alarming capability of NIKSUN NetTradeWatch assures that users are alerted on these microbursts. Each alarm is directly linked to packet level metadata and meaningful metrics which quickly identifies the source of network congestion and establishes a path to root-cause correction/ mean-time-to-resolution (MTTR) of trade-related problems.

Trade Transaction Monitoring

NetTradeWatch provides insights into the reliability of market data on arrival into the trading floor along with the capability to monitor trade transactions. Multi-point analysis on network delays can be done to identify slow connections. Transaction sessions can be reconstructed to identify bottlenecks for fast and efficient root-cause analysis and remediation. Intelligent analysis is done on transaction data from the application layer all the way down to the network layer. Correlating the application layer analytics with network statistics helps to accurately and efficiently identify the causes of latency in the network.

Transactions can be analyzed to compute statistical information on the volume and types of trade orders. Response times for individual end-to-end transactions, such as Order Execution Time, Order Cancel Time, Order Acknowledgement Time, and Order Reject Time, are calculated and can be correlated to the volume of trade orders to determine the sustainability of the trading system. Alarms are generated on network incidents like excessive network latency or timed-out transactions. These quickly alert users to the degradation of the network, thus helping in mitigation of market risk.



Latency and loss measurements with NIKSUN NetTradeWatch

Technical Information

Protocols Supported: TCP, UDP, ARCA FAST, MOLDUDP, CQS, TIBCO, CQLS, ITC-C, RLC, UQDF, FIX and many more.

Integration: *Authentication* - TACACS+, RADIUS, LDAP and Active Directory. All NIKSUN products integrate with NIKSUN NetOmni™ Full Suite for enterprise-wide aggregation, reporting and visualization.

Package Availability: NetTradeWatch is available as an optional package on NIKSUN NetVCR®.

Interested in learning more?

For more information, please visit us online at *niksun.com*.

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About NIKSUN, Inc. NIKSUN is the recognized worldwide leader in making the Unknown Known. The company develops a highly scalable array of real time and forensics-based cyber security and performance management solutions for large enterprises, government & intelligence agencies, service providers and financial services companies. NIKSUN's award winning enterprise solutions deliver unprecedented flexibility and packet capture power. The company's patented real-time analysis and recording technology is the industry's most comprehensive solution for secure and reliable network infrastructure and services. NIKSUN, headquartered in Princeton, New Jersey, has sales offices and distributors throughout the US, Europe, the Mid East and Asia-Pacific. For more information, please visit www.niksun.com.

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