Data Feed

Delivery Services

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A comprehensive, ultra-low latency, tick-by-tick enterprise level streaming market data solution

QuoteMedia's geographically redundant Data Feed Solutions provide normalized data, superior speed, quality, accuracy and reliability in low-latency market data delivery. Our Feed Solutions were developed with a focus on ease of use and flexible delivery options, including TCP or UDP protocols, dedicated-line or Internet delivery, and compressed or uncompressed data formats, and a variety of connectivity methods.

QuoteMedia
Data Feed Overview

QuoteMedia's Data Feed is a comprehensive, ultra-low latency, tick-by-tick enterprise level streaming market data solution. QuoteMedia's Data Feed has been benchmarked as one of the fastest data streams in the industry, with all sources of latency removed and data processing fully optimized to ensure single digit millisecond performance. State of the art technology delivers normalized data from all North American exchanges with ultra-low latency, complete redundancy, and superior accuracy and reliability.

QuoteMedia's Data Feed contains complete coverage of all North American Exchanges and ECNs, including equities, options, futures, commodities, currencies, mutual funds, and indices. The data streams are tick-by-tick, in real-time or delayed, and completely normalized for ease of use. Supplemental fundamental, historical, and analytical data is also available, keyed to the same symbology for a complete market data solution.

QuoteMedia offers flexible delivery options, including TCP or UDP protocols, dedicated line or Internet delivery, and compressed or uncompressed data streams. We have developed extremely easy to use interfaces and messaging formats, and a variety of connectivity methods.

Speed, quality and reliability are of utmost importance. QuoteMedia Data Feed services are best-of-breed in terms of lowest latency, accuracy, and superior service. QuoteMedia's ticker plants are fully redundant, with isolated access points in New York, New Jersey, and Vancouver, Canada. Automatic failover within each access point is fully supported.

QuoteMedia has performed strenuous load testing to ensure consistent speed and accuracy at all times, including peak market conditions. Zero data loss and zero speed differentiation were achieved during simulations in which messages from all exchanges were accelerated to over 1,000,000 messages per second per server.

QuoteMedia allows clients to choose as much or as little data as they require for their specific needs. QuoteMedia Data Feed has over 100 discrete data channels that can be readily accessed, and special custom feed configurations make data sourcing simple as well as cost effective. QuoteMedia can provide complete tick-by-tick, or moderated/aggregated data to suit client requirements.

QuoteMedia has also developed short-term data recovery systems in case of client failure. Each QuoteMedia Data Feed channel provides a rollback buffer to recapture any missed data, and also provides continuous full refresh records to ensure complete and accurate data recovery.

Data Feed
Market Coverage

QuoteMedia Data Feed currently provides complete coverage of all North American stock exchanges, ATSs, options, futures, commodities, currencies, and mutual funds.

Real Time Equities, Level 1 And 2 Data:
- Nasdaq
- OTC Markets
- London Stock Exchange (LSE)
- Toronto Stock Exchange (TSX)
- TSXV
- Canadian Securities Exchange (CSE)
- Canadian Alternative Trading

    Canadian Alternative Trading Systems including Alpha, CSE Pure, Omega, LYNX, NEO, LIT and Liquidnet and Instanet Dark Pools

Real Time Equities, Level 1 Data:
- NYSE
- NYSE American
- Nasdaq Basic
- Cboe One
- Cboe EDGX
- Canadian Consolidated Quotes (CCQ)
- International equities, including delayed German markets and end of day European and Asian.

Options:
- OPRA
- Montreal Exchange

Futures:
- CME
- NYMEX
- COMEX
- CBOT
- Cboe Futures Exchange
- Montreal Stock Exchange
- ICE NGX Futures

Indices:
- Dow Jones
- Nasdaq GIDS
- NYSE GIF
- Morningstar
- CME S&P
- Russell
- Canadian - S&P/TSX
- International, including FTSE, Euronext and Nikkei indices.
- Treasury Yield Indices
- MSCI All country world indices

US and Canadian Funds, including Mutual Funds, ETFs and UITs.

Real Time Forex data for over 100 currencies.

Financial Rates Data For The Following:
- Federal Funds and Prime Rates
- Certificate of Deposits
- Treasury Bills
- Constant Maturities Treasury
- LIBOR
- Primary Market Mortgage Survey
- Labour and Economic Indicators
- Interest Rate Swaps

Data Feed
Market Coverage

In conjunction with Data Feed, QuoteMedia provides supplemental data, including:

Fundamental data - EPS, P/E ratio, dividends, yield, shares outstanding, market cap, etc.

Analytical statistics - 52 week high/low, moving averages, average volumes, moving performance numbers

Historical EOD data - Over 10 years of fully adjusted and keyed historical data

Market Updates North American indices, market movers, actives, gainers, losers

Company Information business description, address, phone, fax, email, website, auditors, last audit, employees, officers, etc.

Classification codes sector, industry, NAICS, SIC, CIK, CUSIP, etc.

Share Statistics shares outstanding, float, holdings, profitability, management effectiveness, short interest, short interest ratio

Financials balance sheets, income statements, cash flow statements, quarterly and annual reports

Insider information buys, sells, private sales, and forms 144 proposed sales, private placements, exercised options, ownership, etc.

Charting intraday, historical, comparative, analytical and interactive.

SEC filings categorized by symbol/company, as well as recent filings

News company based news and categorized news from various sources: Business Wire, MarketWired, PR Newswire, GlobeNewswire, UPI, Canada Newswire, The News Wire, Thomson Reuters ONE, E-World Wire, M2 Presswire, Dow Jones, Market News Publishing, TSX CP Equities News, theflyonthewall.com News, Stock-watch, and others.

Calendars broker ratings, earnings, and corporate actions

Exchange messages US and Canadian splits, symbol changes, name changes, etc.

Many other products to supplement the Data Feed. We deliver a variety of market information packages as well as custom solutions and applications.

Data Feed
Delivery Mechanisms

QuoteMedia Data Feed provides a highly flexible data delivery framework designed to best suit the needs of the client. Market data is securely delivered via multiple discrete channels, with each channel being individually selectable and configurable so that clients can choose individual markets or exchanges, and the specific data points they wish to receive. This is ideal for those wishing to maximize client side efficiency and minimize bandwidth costs. Each channel can be configured as follows, depending on client needs:

TCP or UDP – Clients can choose TCP (Transmission Control Protocol) connections, or UDP (User Datagram Protocol) messaging. The data can be streamed over dedicated lines or via the Internet.

Data Compression – Clients can choose to receive compressed or uncompressed data. Compression can reduce bandwidth requirements by a factor of up to 6:1 during peak loads. QuoteMedia's Data Feed uses proprietary compression systems which decompress via standard ZLIB (gzip/deflate) decompression algorithms, thus allowing for easy client side decompression. Furthermore, these high-speed compression algorithms add negligible latency to the feed.

String Readable or Binary Data Format – Clients can choose binary data messages or String Readable data messages. Binary data messages provide the fastest performance and lowest latency. Alternatively, string readable data reduces client time-to-market in some cases by simplifying implementation, testing, and maintenance.

Easy-to-use Client Library's – QuoteMedia provides client side libraries and sample code in Java, .Net, and Javascript that ease client implementation and reduce development time and complexity.

Tick-by-Tick or Moderated Data – Clients can elect to receive a complete feed for a given exchange, which includes every tick. Alternatively, clients can receive moderated feeds with aggregated updates. Quote-Media's proprietary aggregation algorithms can lower bandwidth expenses, reduce data volumes, and improve system efficiency for clients who do not require a complete tick-by-tick feed.

Real-Time or Delayed Data – QuoteMedia's Data Feed provides data in real-time or delayed. If delayed data is desired, pre-delayed data channels can be used to ensure proper compliance with Exchange licensing requirements.

Entire Exchanges or Selected Subsets – QuoteMedia's Data feeds allow clients to stream entire datasets on per exchange/channel basis, or to selectively subscribe to specific sets of symbols and message types - level 1 quotes vs trades vs price data vs orders for example – to substantially reduce bandwidth and processing overhead when an entire marketplace is not required.

QuoteMedia
Data Feed Products

Data Feed Raw

Compressed/Uncompressed, TCP/UDP, ASCII, Realtime/Delayed
This feed operates at the lowest level of the feed stack, providing a lightweight, simple, consolidated view of raw exchange feeds. No additional processing of data is done other than normalization into a single message format. This feed can be taken via TCP or Multicast, compressed or uncompressed, and in ASCII or binary format. Internet delivery is possible for small datasets but dedicated lines are recommended for large datasets, multiple channels.

Data Feed Plus

Compressed/Uncompressed, TCP/UDP, Binary, Realtime/Delayed
Providing all raw exchange data points plus additional derived data in real-time or delayed, this feed is pro-vides it all. Additional data points include price data such as Open, high, low, close, change, and volume, along with bar intervals, order book updates, market stats, and other value-add information. This feed is available through a modern easy-to-use API that returns binary data over TCP or multicast connections. Optional client-side libraries in Java and .Net are available for fast integration, testing, and use.

Data Feed Select

Uncompressed, TCP, Binary, Realtime/Delayed
Similar to Data Feed Plus, this feed allows clients to selectively subscribe to subsets of symbols and message types using QuoteMedia's Data Feed client side libraries. This is a good fit for clients who don't need entire market places in a central place but either want a limited set of data for internal use or for direct distribution to end users. In this use case, QuoteMedia client libraries can be directly embedded in end user applications or browsers (using our JavaScript library) and QuoteMedia can even act as Vendor-Of-Record (VOR) depending upon needs.

EnterpriseX

XML (Extensible Markup Language)
XML real-time or delayed market data feeds pre-for-matted for client implementation. XML is a cross-plat-form, independent language for distributing data in a universal data format via the Internet. QuoteMedia's XML feeds are polled, or query based, rather than stream-ing. EOD XML End of Day XML for each Exchange XML end of day data is available via QuoteMedia's
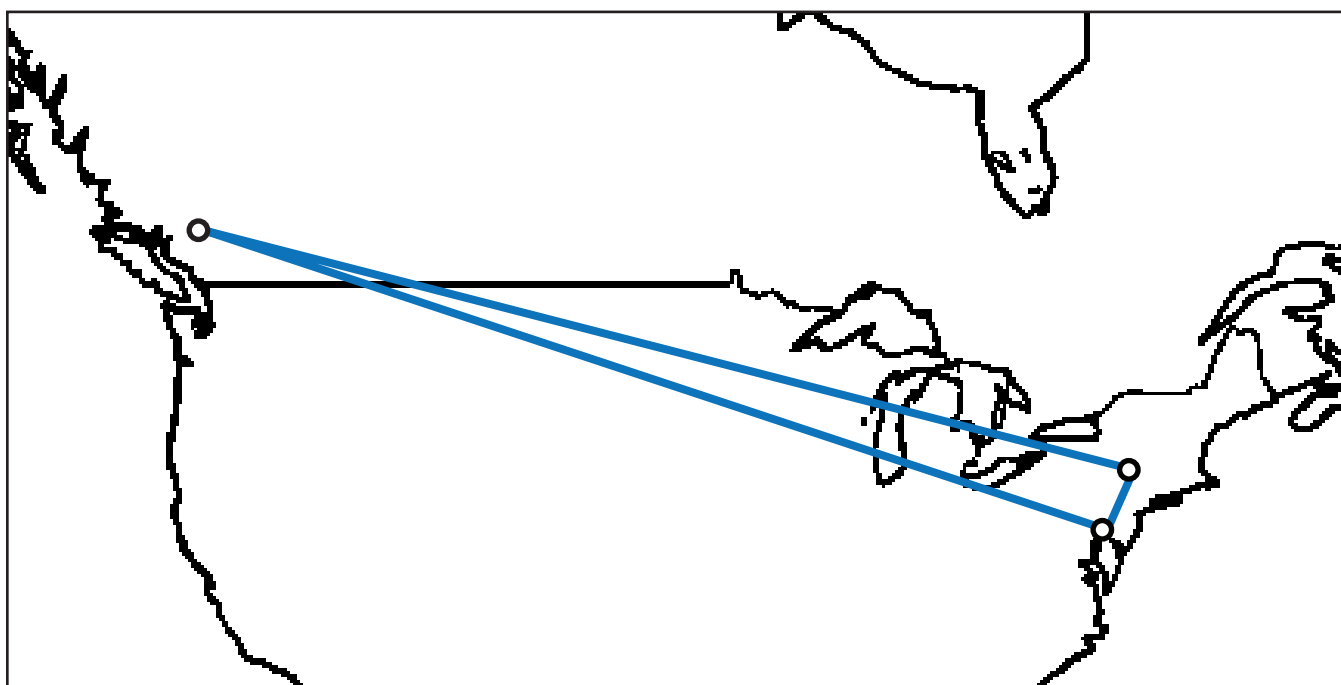
EOD XML feed
XML calls can be performed nightly for each exchange, updating client databases easily and efficiently.

Redundancy
And Reliability

QuoteMedia's primary ticker plants are located in **New Jersey, New York, and Vancouver**. The facilities are mirrored and have resilient direct connections to the exchanges. A ring network connects all 3 datacenters together, providing multiple paths and ensuring redundancy via any two POPs. 24 hour system monitoring is in place with real-time auto-failover capability. The New Jersey ticker plant is located at the BT Radianz data center in Nutley, NJ, the New York plant is at NY4 in Secaucus, NJ and the Vancouver facility is located at the Peer1 Network data center.

For complete redundancy, QuoteMedia offers the ability for clients to connect to any 2 of the 3 datacenters in a live-live model. Furthermore, QuoteMedia's feed servers automatically fail-over via cross-connect, if an access point or exchange connection goes down.

QuoteMedia systems currently process and normalize over 1,000,000 messages per second during peak market times. QuoteMedia has performed extensive load testing, simulating accelerated rates of well over 5,000,000 messages per second per server, with no measurable effect on performance.

Data Feed
Services Speed

Quality - Reliability - Flexibility - Coverage - Service
QuoteMedia's Data Feed provides unsurpassed data service to clients with a multitude of benefits that make it unrivaled in the market data industry:

Low latency data delivery from every exchange. With our state of the art hardware and optimized software, clients can expect less than 1 millisecond of latency introduced by our data normalization process, from the time the data is received by QuoteMedia's server system, until the time the data leaves the server.

Complete Coverage of North American markets with international indices and currencies. QuoteMedia's Data Feed incorporates: SIAC data, including NYSE and AMEX; NASDAQ data, including OTCBB, Level II and TotalView; Pink Sheets Level 1 and 2; TSX data including MarketDepth for TSX and TSXV; ECNs; NY-MEX; COMEX; CME; and all OPRA feeds, including all regional options exchanges.

Supplemental data including fundamental, historical, analytical, and research data, all keyed to the same symbology. QuoteMedia is a single-source provider of comprehensive market data solutions.

Tick-by-tick normalized real-time and delayed data streams are available, as are moderated/aggregated data streams.

Quality data is essential in data provisioning. Our data comes directly from the exchanges. During the normalization process, data anomalies are flagged and managed accordingly, ensuring optimal data integrity.

Multiple delivery options are available, including TCP or UDP protocols, dedicated line or Internet delivery, and compressed or uncompressed data streams.

Redundancy throughout all of QuoteMedia systems, including mirrored facilities in New York and Vancouver, with automatic fail-over and 24 hour monitoring.

Reliability with 99.9% uptime guaranteed. Our systems are designed around feed stability and redundancy, for complete dependability.

Data buffering and replay capabilities provide clients the ability to reconnect and retrieve lost data in the case of client-side data losses and outages.

Fast implementation is typical as QuoteMedia's data format is String Readable, a text-based, human readable format. This format enhances ease of implementation by the client's technical team as they will not have to deal with difficult data formatting.

Simple decompression on the client-side using industry standard data decompression techniques such as GZIP/deflate. Our proprietary compression technology allows simple decompression, and clients are not forced to use special APIs or costly infrastructure.

Easy data management with extremely user -friendly interfaces, simple messaging formats, and straightforward connectivity is all part of QuoteMedia's Data Feed design.

Service is our top priority. We fully support our Data Feed products, and will assist in any way to help with implementation. QuoteMedia has a well-deserved reputation for superior customer service and attentiveness to customer needs.

Contact Us

QuoteMedia has a variety of market data solutions. We would be happy to discuss all of your options, and help you find the solution that best fits your business model.

Please contact a QuoteMedia account representative and we will answer any further questions you might have regarding QuoteMedia Data Feed products, or any of QuoteMedia's other financial information solutions.

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