Messaging
High Performance Peer-to-Peer Messaging Middleware
Can You Grow Your Business Without Growing Your Infrastructure?

The speed and efficiency of your messaging middleware is often a limiting factor in the agility of your business to respond to changing conditions. But the more data you have, the more your infrastructure grows in order to manage it, exposing performance and scalability issues. Your application portfolio expands, regulatory and compliance pressure increases, and IT costs escalate, suggesting a new architecture may be needed. Meanwhile, your front- and back-office applications struggle with disparate messaging solutions that require too much maintenance.

Poor Performance and Scalability

Traditional messaging technology was never designed to accommodate throughput of millions of messages per second or latency measured in micro- or nanoseconds. Many legacy messaging solutions accommodate only a handful of common applications or a single operating system. Homegrown solutions are hard to scale and require developers to spend their time maintaining and updating code. While these older messaging solutions may have served their purpose in the past, they can no longer meet the needs of companies that now generate an unprecedented volume of data on a daily or even hourly basis.

“Informatica Ultra Messaging has had a profound effect on the messaging world, and Informatica has been able to position itself as the leader in the low-latency arena.”

— Pedro Pinto, Partner
Blue Trading Systems

Complex, Unreliable Architecture

For any business that requires fast access to real-time data, delays and failures can be literal deal breakers. As systems grow in complexity, the number of potential points of failure and bottlenecks grows too, and the harder your IT team has to work just to keep the systems operational. The brokers and daemons that mediate data flow in traditional messaging solutions add complexity to your infrastructure. Scaling your messaging technology further complicates it.

High IT Infrastructure Costs

The more your infrastructure grows, the more costly it is to manage:

- Purchasing, powering, cooling, and maintaining hardware
- Ensuring ample server space and bandwidth for high-activity periods and future growth
- Adequately staffing the IT organization to administer multiple systems
The Informatica Ultra Messaging Product Family

Informatica® Ultra Messaging® is the leading low-latency messaging middleware and is designed using a modern peer-to-peer architecture that eliminates messaging daemons and brokers. With this family of products, your IT organization can create a powerful and efficient enterprise-wide messaging architecture. Informatica Ultra Messaging provides highly efficient messaging systems that reduce hardware infrastructure costs and improve throughput, scalability, resiliency, and availability. This product family supports all messaging semantics, including publish/subscribe, request/response, and queuing, as well as all qualities of service, namely reliable, guaranteed, and once-and-only-once delivery. All of Informatica’s Ultra Messaging capabilities are available through a common powerful API that supports multiple programming languages (C, .NET, Java, and JMS).

- Increase messaging throughput, resiliency, and reliability
- Consolidate servers and reduce infrastructure costs by using efficient messaging architecture
- Eliminate system downtime with hot/hot, zero-latency failover modes

BLUE TRADING SYSTEMS LEVERAGES MESSAGING FOR COMPETITIVE ADVANTAGE

- Boosted agility in options trading markets
- Increased stability of trading platforms
- Reduced infrastructure costs

To provide a high-speed options trading platform to smaller options market-makers, Blue Trading Systems needed a low-latency messaging solution capable of handling millions of messages every second for client implementations ranging from 2 to more than 200 servers and from 2 to more than 2,000 message recipients. Blue Trading Systems embedded Informatica Ultra Messaging in its trading platform, enabling submillisecond messaging by eliminating centralized message brokers that would otherwise increase message latency and impact reliability and scalability. The company’s clients can execute trades faster and more reliably, giving them a competitive edge in the options market.

All editions of Informatica Ultra Messaging software include a management console provides centralized management of configuration options for applications across the entire messaging bus, including rules for user access to topics and applications.
The Standard for Low-Latency Messaging over Any Network

Informatica Ultra Messaging Streaming Edition is the standard for reliable ultra-low-latency messaging middleware. By leveraging the many benefits of direct peer-to-peer messaging, Ultra Messaging delivers industry-leading performance, reliability, and scalability at a lower total cost of ownership than broker-or daemon-based solutions. Flexible, powerful, and efficient, Informatica Ultra Messaging Streaming Edition allows IT organizations to reduce single points of failure and maintenance headaches and simplify and speed up the new application deployment process.

Modern computer and network hardware is already capable of very impressive performance numbers when running software designed for efficiency, as with Informatica Ultra Messaging Streaming Edition. Compared with broker- and daemon-based solutions, Informatica Ultra Messaging Streaming Edition delivers better performance and saves on IT infrastructure costs because it runs on commodity hardware. You enjoy stable, resilient messaging plus a smaller hardware footprint, more efficient server utilization, reduced energy costs, and easier maintenance and deployment. And with 24x7 availability and hot/hot failover, Informatica Ultra Messaging Streaming Edition is always available.

**Features**

- High performance with near-linear scalability
- 24x7 reliability and zero latency hot/hot failover
- Ultimate flexibility

**Benefits**

- Free developers to focus on core competency
- Improve low-latency messaging middleware performance and stability
- Dramatically reduce IT infrastructure costs

**SAxo BANK UNCLOGS BOTTLENECKS**

An investment bank specializing in on-line trading, Saxo Bank enables its clients to trade currencies, stocks, futures, and other derivatives via its on-line trading platforms. Data volume growth had overwhelmed its legacy messaging solution, creating bottlenecks that affected client service and hindered the bank’s plans for future expansion.

Informatica Ultra Messaging Streaming Edition has helped transform the bank’s trade capture, transaction, and order management systems by delivering more than 5 million messages per second at a latency of less than 40 microseconds. As a result, Saxo Bank performs more trades for more clients in less time.

- Managed explosive trading data growth
- Reduced transaction costs
- Provided faster, higher-value service
Reliable, High-Throughput, Ultra-Low-Latency Guaranteed Messaging

Informatica Ultra Messaging Persistence Edition is high-performance guaranteed messaging software. It is built on Informatica’s revolutionary parallel persistence architecture for unsurpassed resilience and performance. This edition extends the same resilient, direct peer-to-peer design of Informatica Ultra Messaging Streaming Edition to include parallel persistence data stores to provide guaranteed messaging. Recovery of failed processes takes place outside of the message path to ensure uninterrupted service.

Informatica Ultra Messaging Persistence Edition delivers better performance than broker- and daemon-based solutions with less hardware. You enjoy stable, resilient messaging as well as the significant savings of a smaller hardware footprint, more efficient server utilization, reduced energy costs, and easier maintenance. And with 24x7 availability and hot/hot failover, Informatica Ultra Messaging Persistence Edition is always available.

Features
- High-performance guaranteed messaging with no persistence penalty
- 24x7 reliability with zero latency hot/hot failover
- Ultimate flexibility

Benefits
- Free developers to focus on core competency
- Dramatically improve guaranteed messaging system resilience and performance
- Reduce IT infrastructure costs

DIRECT EDGE GAINS A COMPETITIVE EDGE

Direct Edge is an 85-employee electronic marketplace where investors buy and sell more than 1 billion shares of U.S. stocks daily. Anticipating major increases in trading volumes as it moved to become a full-fledged stock exchange, the company needed to reduce the already low latency of its trading system.

Direct Edge dramatically increased infrastructure capacity, reduced latencies in both average and high-volume periods, reduced its system footprint, and gained the flexibility to respond to future changes in regulatory and business requirements—while also saving $1 million in hardware costs.
Informatica Ultra Messaging Queuing Edition

**Efficient, Resilient, Low-Latency Message Queuing for Your Enterprise Messaging Architecture**

Informatica Ultra Messaging Queuing Edition combines intelligent, robust, high-performance message queuing and automatic load balancing with guaranteed and reliable messaging. It enables accurate and ordered processing via once-and-only-once message delivery. This message queuing edition leverages the powerful combination of a JMS API plus the well-known performance and high availability of Informatica Ultra Messaging.

Informatica Ultra Messaging Queuing Edition simplifies your IT infrastructure for more efficient management, connecting your messaging applications to your JMS applications such as data transformation or data warehousing without daemons or brokers. It’s designed for easy scalability to enable your IT team to add new receiver applications quickly and simply and has built-in workload management that optimizes server usage. And with its smaller server footprint, Informatica Ultra Messaging Queuing Edition reduces management expenses, cuts hardware and energy costs, minimizes single points of failure, leaves more headroom for growth, and streamlines disaster recovery planning—all on commodity hardware.

**Features**
- Flexible, reliable, once-and-only-once message queuing
- High-performance load balancing
- Automatic failover and 24x7 reliability

**Benefits**
- Standardize on one enterprise-wide message queuing technology
- Dramatically improve message queuing performance and resilience
- Reduce IT infrastructure costs

Informatica Ultra Messaging Queuing Edition provides application sets to reduce resource consumption by eliminating duplication across queues, yet still ensures that a message is delivered once-and-only-once to each receiving application.

Diagram: Persistence is Per-Trade and Per-Application

- Trade Capture
- Trade Queue
- Settlement App Set
  - Settlement Server 1
  - Settlement Server 2
  - Settlement Server 3
- Reporting App Set
  - Reporting Server 1
  - Reporting Server 2
Informatica Ultra Messaging Options

Expand the Scope of Next-Generation Low-Latency Messaging

Informatica Ultra Messaging Cache Option
This option extends the speed and power of Informatica Ultra Messaging and Informatica B2B Data Exchange products with the unlimited flexibility of caching. Caching simplifies many business processes by providing an automated way to collect, access, transform, and manage your strategic data from a wide range of sources. This functionality is available as plugins from the Informatica Marketplace.

Informatica Ultra Messaging Desktop Services Option
This option enables desktop applications to send and receive topic-based messages over TCP to and from an Informatica Ultra Messaging bus server. Fast, flexible, stable, and secure, this option provides IT with desktop-level control over messaging.

Informatica Ultra Messaging SNMP Agent Option
This option prevents latency and performance bottlenecks by proactively identifying and resolving performance issues in your network and messaging stack. It helps your IT organization avoid data loss, reduce the risk of downtime, and protect your application investment.

Informatica Ultra Messaging Web Gateway Option
This option empowers your development team to create rich, fully interactive Web applications without browser-specific logic or plugins. You can provide end users with a robust, scalable, and reliable real-time and near-zero-latency interactive experience on any PC, tablet, or mobile phone.

Options Available for Informatica Ultra Messaging Editions

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“If we had all the time in the world to design the ideal messaging solution, it would probably look a lot like Informatica Ultra Messaging. As it is, Informatica has done that job for us.”

– Pedro Pinto, Partner
Blue Trading Systems

ABOUT INFORMATICA

Informatica Corporation (NASDAQ: INFA) is the world’s number one independent provider of data integration software. Organizations around the world rely on Informatica for maximizing return on data to drive their top business imperatives. Worldwide, over 4,630 enterprises depend on Informatica to fully leverage their information assets residing on-premise, in the Cloud and across social networks.