

The Challenge

Automated trading has created a faster trading cycle, which in turn has created more data. And regulation has created new sources of market data. Between 2007 and 2012 the global market data volume is expected to increase by 900 percent, according to the TowerGroup report "Preparing for the Data Flood." This is a huge strain on the information infrastructure of financial firms. This exponential growth in market data cannot be matched by a linear approach in upgrading the supporting infrastructure.

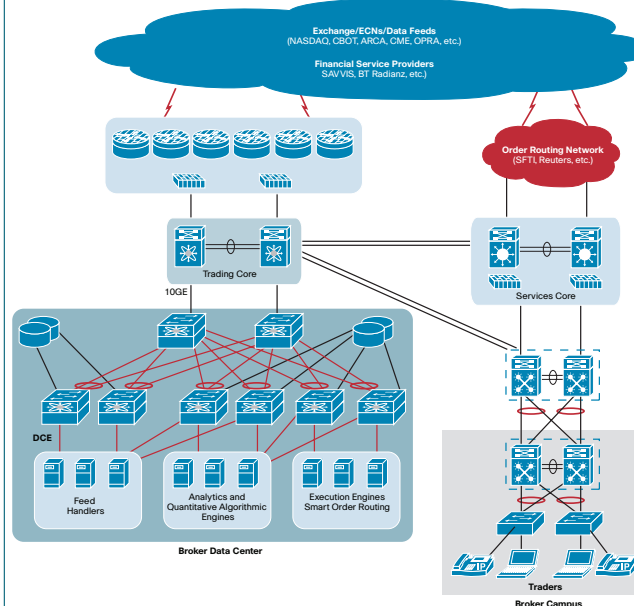
The Cisco High-Performance Trading: Algo Speed Solution

The Cisco® High-Performance Trading (HPT) infrastructure is a scalable, low-latency architecture that helps firms handle the exponentially increasing volumes of market data and trades. High performance means low latency (in the millisecond to microsecond range), high predictability, and the ability to efficiently handle very high volumes at close to the level of one million messages per second. Cisco and its partners are offering an integrated set of technologies to help financial firms accelerate their migration to a next-generation trading platform. Figure 1 illustrates the architecture of the Algo Speed solution, part of Cisco's HPT portfolio.

The Cisco HPT: Algo Speed solution comprises:

- Cisco Nexus™ 5000 and 7000 Series Switches
- Cisco Catalyst® 6500 and Catalyst 4900 Series Switches
- Wombat feed handlers
- 29West Ultra Messaging products, TIBCO Rendezvous, and Reuters Market Data System (RMDS)
- Corvil CorvilNet (for latency monitoring)

Figure 1. High-Performance Trading Algo Speed



HPT: Algo Speed Solution Benefits

- **Minimizes latency and increases capacity across the trading platform:** In a system that delivers time-sensitive data, it is imperative to minimize end-to-end latency. As the data traverses the different components of a trading platform—including market data delivery, order routing, and execution—the HPT infrastructure provides a lowest-latency interconnect at each component.
- **Predictability:** The variation in application messaging delay is reduced, helping to ensure consistent data input into algorithmic trading engines.
- **Reliability:** High-availability features in Cisco switches enable the design of robust networks, proven by large deployments in critical environments.

- **Reduces downtime:** Early detection of microbursts in market data traffic and fast isolation of the source of the delay are critical in order to avoid or shorten downtime of the trading platform.
- **Cisco's ecosystem of partners helps provide interoperable solutions.** Cisco is building key relationships across the HPT value chain and technology companies such as Thomson-Reuters, 29West, TIBCO, and Wombat are among the first in a growing list.

Why Cisco?

Cisco is the industry leader in networking solutions. With its breadth of products and services covering network infrastructure, security, and unified communications, Cisco is uniquely positioned to deliver a high-performance trading platform with the following characteristics:

- The broadest portfolio of enterprise-class products from a market leader
- Robust solution, validated by a third-party testing facility
- Flexible platform that enables firms to tailor their infrastructure components to optimize service delivery and efficiency for variable processing requirements
- Comprehensive ecosystem of key partners across the HPT value chain
- Global training, scalable advanced services, and robust escalations

For More Information

For a more detailed discussion of the High-Performance Trading architecture, please visit:

- http://www.cisco.com/web/strategy/docs/finance/trading_floor_architecture.pdf
- <http://www.cisco.com/go/financialmarkets>