

Real-World Deployments

Activ Financial relies on Arista ultra low-latency Ethernet to accelerate market data delivery



“The Arista team is always open to new ideas and exploring new ways of distributing market data and supporting our customers with the latest in financial trading and Ethernet technologies. Working together, we will create a completely new class and category of product for the financial industry.”

ACTIV Financial Systems, Inc. is a leading provider of market data content and technologies to market makers, hedge funds, brokers, and trading systems. ACTIV provides managed low-latency and high-volume market data services to over 300 customers worldwide. Additionally, ACTIV delivers consolidated, hosted and on-site ticker plant services for exchanges around the globe. The company was founded in 2002 and is headquartered in Chicago, Illinois with additional offices in New York, the United Kingdom, Singapore, and Japan. They also have data centers in New York, Chicago, Toronto, Frankfurt, London, Tokyo, Singapore, and Hong Kong.

As the leader in providing innovative low-latency market data delivery systems to leading financial institutions, ACTIV Financial Systems began deploying Arista switches because of their fast cut-through switching technology and ultra low-latency performance.

“Arista Networks offers better pricing than its competitors -- it’s nice that Arista’s Layer-3 functionality and operating system is compatible with competitors’ products, making it an easy transition for our in-house team of experts,” says Steve McNeany, president of ACTIV Financial Systems.

In this highly competitive industry, ACTIV Financial excels in providing market data services for electronic trading strategies through their feeds and ActivMiddleware, a layered suite of shrink-wrapped software components and services used for building large-scale real-time distributed systems. Other products include ActivMessaging, a messaging substrate, which delivers arbitrarily large messages over shared memory; ActivDatabase, a real-time database engine; and ActivWorkstation, a tick market data interface which offers pre-opening market data, net-order imbalances, and full tick coverage data.

Additionally, the company offers content from various exchanges which they combine with corporate actions, fundamental data, news, and time series data, as well as operate as a Vendor of Record for equity, derivative, and commodity exchanges.

“We take in real-time data from the exchanges which we then consolidate and add value to, and pass that consolidated data to the clients.”

ACTIV also provides algorithmic and electronic trading, global enterprise distribution, DMA trading platform, tick-capture engines, back testing, market making and auto-quoting solutions. Additionally, ACTIV offers technology management, content management and support services. “Raw data from exchanges require options and general maintenance to keep the data fresh and clean. We do all of that. Our clients are buying our brand not a white-label technology to resell. We sell data directly to our clients.”

The three tiers of deployment for ACTIV Financial are comprised of feed handlers, content servers, and message gateway. ACTIV relies on Arista switching equipment for exchange peering, multicast feed distribution, and to provide a message bus between the tiers of the application architecture.

ACTIV Financial clients have included market makers, brokerage and OMS/EMS/DMA providers, proprietary traders, buy side participants, and hedge funds managers. For the case of ACTIV Financial, their clients generally connect to them via a direct connection to one of the major head-end sites such as Tokyo, New York, or Chicago. “They may also share rack space at one of our facilities to do a simple cross connect. In

some cases, they may have feed handlers running local feeds that have been sourced directly to use our technology.”

In the financial services industry, transaction rates are constantly growing and message volume is increasing approximately 25% annually. These messages need to be processed and passed on to client applications. “One distinct competitive advantage for us is that our API operates in such a way that we can consolidate and deliver a tremendous volume of market information which enables our customers to view a variety of instruments concurrently. ACTIV allows them to view everything while they have the option of only subscribing to the information they want to watch. The API is very powerful and capable of delivering large volumes of data and Arista switches allows us to do so with almost no measurable latency increase.”

ACTIV Financial has been very pleased with the Arista switches and credits Arista Networks for being ahead of the curve in the switching industry. “Arista has provided us with a product we have been looking for and one that we anticipate seeing more of in terms of high density, cut-through, low latency switches, but with all the bells and whistles of Layer-3 functionality we need to peer at major exchanges.”

A key part of the Arista culture that ACTIV Financial greatly appreciates is the open operating system and technical transparency. “The Arista team is always open to new ideas and exploring new ways of distributing market data and supporting our customers with the latest in financial trading and Ethernet technologies. Working together we will create a completely new class and category of product for the financial industry.”