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## Overview

### The need

To deliver high performance for financial trading applications—where microseconds count—Options IT needed a server platform with ultra-low latency, proven reliability and an efficient design.

### The solution

With Options' cloud services on compact IBM® System x® 3750 M4 servers, based on Intel® Xeon® processors, the firm's clients can reliably capitalize on new opportunities with near-instantaneous speed.

### The benefit

The IBM solution helped Options increase its client base by 20 percent, expand services for existing customers and access the latest high-performance technology for outpacing the competition.

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# Options IT adds speed and resiliency to its financial cloud services

*Delivering ultra-low latency and exceptional performance with IBM System x servers*

Founded in 1993, Options IT is one of the leading IT services providers for the global financial services sector, supported by offices in New York, Chicago, London, Belfast, Hong Kong and Singapore. Initially focused on serving hedge funds in the London market, the company made a strategic decision in 2002 to become the first provider of cloud services to the financial sector. Today, more than 130 firms globally leverage the Options PIPE platform and its private financial cloud offerings. Options' clients include leading hedge funds, funds of funds, proprietary trading firms, market makers, brokers/dealers, private equity houses, exchanges and global investment banks.

## Overcoming the latency barriers in high-frequency trading

When it comes to electronic trading operations, the difference between success and failure can be measured in a few microseconds. Today's financial services firms need to be able to analyze vast amounts of stock data, run complex algorithms and execute millions of transactions per second. And they need to be able to do it all faster than the competition. By delivering fast performance and low latency to meet these firms' needs, Options IT was able to seize upon a critical growth opportunity.

As Ken Barnes, senior vice president of corporate development at Options, explains, "We needed to be able to host our customers' trading applications on high-performance servers in data centers around the world. We needed a server platform that we knew was going to be reliable and efficient, and that was going to be backed by a company that would keep up with changing trends—from always adopting the latest



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*“We had about 20 percent growth in the first quarter of this year, and those were deals built around the IBM System x3750 M4 platform.”*

—Ken Barnes, senior vice president of corporate development, Options IT



Intel processors to keeping up with other specialist technologies, like low-latency networking cards from Solarflare and Mellanox. We found all that and more with the IBM System x3750 M4 platform.”

To break through the latency barriers imposed by large, multi-server environments, Options wanted to take advantage of the latest multi-core processor technologies to deliver extreme throughput and low latency. And it wanted to deploy its private financial cloud services in a compact, efficient and cost-effective infrastructure.

Options turned to IBM to test the potential of x3750 M4 servers running Intel Xeon multi-core processors. In particular, the firm wanted to evaluate the server performance for its electronic trading hosting services. Since the x3750 M4 server can accommodate up to 1.5 TB of memory, high-speed processing and fast eXFlash solid-state drives (SSDs) for internal drives, Options found it to be an ideal platform for the most complex trading applications. The firm was also able to tune its software to leverage high-performance network adapters—enabling it to pull market data feeds directly into memory at faster rates.

In addition, since x3750 M4 features an ultra-dense design, Options can deliver more processing power for clients in a smaller footprint. This can translate to significant cost savings in co-located rackspace, in terms of both physical floor space requirements and related data center power and cooling costs.

### **Building a resilient cloud platform**

After its initial evaluation phase, Options began rolling out x3750 M4 servers to its data centers located around the world, with the current deployment reaching into the hundreds. What’s more, the IBM servers do much more than support Options’ intensive financial trading cloud services; the powerful server environment also supports its hosted services for day-to-day business applications, as well as its financial hosting services for front-, middle- and back-office applications.

“We run a variety of applications on the x3750 M4 platform. Electronic trading is probably the most demanding, performance-wise,” says Barnes. “But we also use these servers to run everything from our core infrastructure services, including our email, Active Directory authentication and

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## Solution components

### Hardware

- IBM® System x® 3750 M4
  - Intel® Xeon® processors
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our file servers. And we also use them to run a variety of financial applications, some physical and some virtual, including portfolio management applications, risk management applications and so on.”

Rather than replacing existing infrastructure, the IBM solution has been completely driven by growth opportunities for Options’ business. As the firm has been building out its server environment to meet customer demand, the proven reliability of the IBM brand has helped build Options’ client base.

“We had about 20 percent growth in the first quarter of this year, and those were deals built on the x3750 M4 platform,” says Barnes. “Our customers have a lot of faith in the IBM brand, and I think it gives them comfort to know that we’re going to have consistent access to high-performance technology.”

High availability is also a key requirement in the financial industry, where downtime can mean a significant loss in profitability. The IBM server environment provides Options’ customers with a robust and resilient technology foundation—so they can remove the ongoing cost of platform optimization from their balance sheets and focus instead on their core competencies. In addition, IBM has established the Wall Street Center of Excellence to help financial markets clients benefit from best practices in deploying leading-edge technologies, tuning and configuring systems for high performance. This guidance helps add value to the Options platform.

As Barnes continues, “Our customers know that, because we are working with a company like IBM, we have the support there when we need it. And we can get service from anywhere in the world. This peace of mind really resonates with our customers.”

## Exploring global success with IBM

Options has been an IBM customer for many years, and with the ongoing deployment of x3750 M4 servers for its financial cloud platform, the firm has built a win-win relationship for providing infrastructure services in the US and abroad. “We’re a services provider,” says Barnes, “and as we win more business, we bring that to IBM.”

Through its achievements in delivering high performance, increasing flexibility and improving availability, Options continues to recognize the value of working with IBM and plans to keep building upon this tradition of success for many years to come.

## For more information

Please contact your IBM representative or IBM Business Partner, or visit us at: [ibm.com/systems/x](http://ibm.com/systems/x)

For more information on the IBM Wall Street Center of Excellence, or to arrange a visit, please visit:

[ibm.com/systems/services/briefingcenter/wscoe/](http://ibm.com/systems/services/briefingcenter/wscoe/)

To learn more about Options IT, please visit: [www.options-it.com/](http://www.options-it.com/) or follow them on Twitter [@options\\_it](https://twitter.com/options_it)



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