




Financial Services Firm Secures New Advantage

Winterflood Securities deploys industry's first Cisco Unified Computing System, improving business operations and agility.

EXECUTIVE SUMMARY

Customer Name: Winterflood Securities 

Industry: Financial Services

Location: UK

Company size: 190 employees

Challenge

- Respond to explosive growth in data volumes
- Quicker adaption to new market opportunities

Solution

- Cisco Data Center 3.0 vision, architecture, and technologies
- Cisco Unified Computing System

Results

- Data processing and scalability have been improved
- Trading applications can be deployed in hours rather than weeks
- Future server replacement costs were reduced by 90 percent

Challenge

Winterflood Securities is one of the leading liquidity providers in London, making markets in more UK stocks than any other firm. This success is built upon a highly experienced 90-strong trading team and the ability to offer its clients (brokers, asset managers, and institutional investors) low-latency, integrated electronic trading platforms and over 10,000 tradable instruments.

The introduction in Europe of the 2007 Markets in Financial Instruments Directive (MiFID) has resulted in significant fragmentation across the European marketplace. Winterflood plays an important role in helping its clients to successfully navigate this situation by providing access to new pools of liquidity and helping ensure 'best execution' (the optimal mix of price, speed, and certainty). Not surprisingly, this fragmentation has resulted in an explosion in trading volumes.

"Prior to MiFID, we handled around three to four million messages a day. Now, we're looking at 250 million, with peaks often passing 30,000 updates in a second. But it is not just about improving data processing and scalability. MiFID has also opened the door to many new entrants. With this in mind, our strategy was to research and introduce a platform that allowed for quicker implementation times while providing greater scalability, performance and reliability," says Philip Yarrow, director of electronic trading for Winterflood.

Winterflood's ability to meet these challenges was being constrained by a lack of flexibility and difficulties in scaling an estate of dedicated physical servers. Every time a new service was introduced, such as a new low-latency data feed, the IT team would invariably have to purchase new hardware. The hardware would then have to be pre-designed and pre-built for that particular function, before undergoing a three to four week soak test. These lead times could be extended even further if stability problems needed to be resolved.

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Solution

Faced with the need to upgrade its VMware platform, Winterflood decided to step back and take a holistic review of its data center strategy.

“We have a Cisco end-to-end network infrastructure, which we like and know very well. In particular, their Technical Assistance Center (TAC) support is excellent and provides us with a huge comfort factor. In addition, we’ve also been monitoring the evolution of blade servers for a while. Therefore, the idea of closely integrating the two together was very attractive,” says Wayne Davies, manager networks and infrastructure for Winterflood.

The first stage of this strategy has seen Winterflood implement the [Cisco Unified Computing System™](#) (UCS), a next-generation data center platform specifically built to accelerate the virtualization process.

UCS is a key cornerstone within [Cisco® Data Center 3.0](#), an architectural approach for data center evolution that uses a three-phase methodology: consolidate, virtualize, and automate. The end result is tighter integration of servers, networks, and storage systems, which in turn helps to deliver new improvements in performance and cost efficiency.

Powered by the latest breakthrough in Intel processor technology, the Cisco Unified Computing System is both economic and environmentally friendly. “The new Intel Xeon Processor 5600 series chips run a lot cooler and consume less power,” says Davies.



Winterflood can also benefit from pioneering [Cisco VN-Link](#) technology that is embedded in the UCS blade servers. The virtual links communicate directly with the network interface cards and virtual interfaces on the parent switch, allowing quality of service and security to be managed on a per virtual machine basis.

Drawing on best practice experience gained through internal usage and other deployments worldwide, Cisco Advanced Services helped to plan, design, and implement the system. The engagement also included the delivery of a Startup Accelerator Service to speed Winterflood’s deployment of the platform.

Components of the implemented solution include four Cisco Unified Computing System chassis (five blades in each); Cisco Nexus® 1000, 2000, and 5000 Series Switches; and Cisco Catalyst® 6500 Series 10 Gigabit Ethernet Switches.

Following an extensive three-month test, Winterflood has now started to move its key trading applications onto the system. “UCS allowed us to take a gradual and cautious approach to migration, which in a dynamic trading environment is very important. We began with the less critical systems and, as we became more familiar and confident with the solution, we started to move across suitable trading applications. UCS currently manages around 160 virtual servers,” says Grant Davidson, head of IT for Winterflood.

The award-winning Cisco SMARTnet® technical support services place an extensive range of technical resources at Winterflood’s disposal and help to maximize operational efficiency. These resources include proactive diagnostics and real-time alerts, around-the-clock access to the Cisco TAC, hardware replacement options, and ongoing operating system software updates.

Results

The Cisco UCS deployment, the first in the UK, is expected to deliver significant first-mover advantage to Winterflood Securities. Uniting computational, network, storage access, and virtualization resources in a single energy-efficient system will help the firm to reduce IT infrastructure costs and complexity, extend capital assets, and capitalize faster on new business opportunities.

“By carrying a spare blade in the chassis, our IT team can provision a new service overnight, so it is ready to go live in time for next-day trading.”

–Philip Yarrow, Director of Electronic Trading, Winterflood

“Cisco UCS provides us with tremendous flexibility. By carrying a spare blade in the chassis, our IT team can provision a new service overnight, so it is ready to go live in time for next-day trading. All that is needed to tap into new markets in many cases is a simple configuration change. It’s also great news for our customers who are looking for increased choice and best execution services,” says Yarrow.

And the benefits provided by the on-demand data center architecture do not end there. The ability to configure once, and use many times on any blade also provides a path for consolidating server footprint. “The way the system is designed, we can extend our platform by segment or exchange. If we need to, we can dedicate a whole blade to a single stock, or we can re-allocate spare capacity on a blade that is being under-utilized,” says Davidson.

While it is still early days, improving bridging and communications between the server, storage, and network management domains is also expected to deliver efficiency gains. Although each deployment is different, based upon Cisco’s internal modeling and early customer data, the UCS can:

- Lower capital expenditure (CapEx) by as much as 20 percent
- Reduce operational expenditure by up to 30 percent.

Tighter integration of Cisco UCS Manager and VMware vCenter makes virtual machine movement more efficient and secure. This, in turn, decreases risk across the firm’s IT-based operations by making it easier to balance workloads, increase availability, and implement disaster recovery strategies.

Next Steps

Looking ahead, Winterflood intends to improve server life-cycle management and maximize return on investment. “The Cisco Unified Computing System is our number-one platform choice. Before, when a server was approaching end-of-life, we would have been looking at spending somewhere in the region of £40-50K to replace it. Now, we can install and integrate it onto a blade for around a tenth of the cost,” says Davidson.

PRODUCT LIST

Data Center

- Cisco Unified Computing System

Routing and Switching

- Cisco Nexus 1000, 2000, and 5000 Series Switches
- Cisco Catalyst 6500 Series 10 Gigabit Ethernet Switches

Services

- Cisco Advanced Services
- Cisco UCS Startup Accelerator Service
- Cisco SMARTnet Support



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