



## COMPELLENT SECURES FINANCIAL DATA AS STORAGE SELECTION PAYS OFF FOR CMA



Financial institutions worldwide depend upon the credibility and security of CMA's (Credit Market Analysis) products and services every day. Customers trust CMA's credit market pricing data and same-day price verification data to increase their productivity, efficiency and transaction speed.

Established in 2001 by a group of frustrated credit specialists, CMA is an independent company operating out of London and New York. Now a subsidiary of Chicago Mercantile Exchange, it develops pioneering solutions that enable traders to graphically view, organise and store the quotes that they receive in real-time (QuoteVision), and provides a new way of verifying prices to have a more accurate market view and end-of-day position evaluation (DataVision).

As you might imagine, CMA's innovative approach to market analysis creates large volumes of highly-sensitive data that require secure management and bulletproof storage. Ryan Sclanders is the manager of CMA's IT infrastructure services team: "My team's role is twofold. Firstly, we provide comprehensive, real-time customer data services to numerous leading financial services organisations with an understandable emphasis on redundancy and security. And secondly, we are also responsible for the infrastructure within CMA itself, including the network, servers, all hardware and software. The only technical role we aren't directly involved in is actually developing the CMA applications themselves."

### REBUILT FROM SCRATCH

Much of the data stored by CMA comprises vast volumes of credit quotes received by traders in real-time from numerous sources. CMA applications efficiently extract all this information out of emails and other messaging platforms and make it ready to populate real-time or historical databases for short or long term storage. The business is extremely transaction heavy, so all databases must be readily available. CMA services are provided either as in-house or shared solutions. If a customer chooses an in-house solution, its database and application 'talk' to CMA's secure central environment, passing quotes for processing. If the customer opts for a shared solution, the application server and database are often hosted in CMA's own production environment, leaving the trader with just a GUI on his desktop that can communicate with the shared solution.

When Sclanders joined CMA, he immediately set about designing an entirely new infrastructure, built from scratch using Compellent Storage Center SAN technology and



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RYAN SCLANDERS  
IT Infrastructure Services Team Manager  
CMA

### RESULTS REPORTED BY CMA

- » Made substantial savings in terms of capital expenditure, energy bills, administrative overheads and environmental impact
- » Gained essential redundancy features and recovery capabilities
- » Consolidated high number of ageing physical servers through virtualisation
- » Delivered a state-of-the-art, secure, scalable environment supporting remote and onsite managed client applications, as well as internal demands
- » Saved an estimated £300,000 in six months following SAN installation

### OPERATING SYSTEMS

- » Microsoft Windows
- » .NET
- » Linux Ubuntu

### APPLICATIONS

- » Microsoft SQL
- » MySQL
- » Microsoft Exchange Server
- » CMA QuoteVision
- » CMA DataVision

“Compellent was extremely helpful and was able to deliver exactly what we required. I designed the environment, gave Compellent a set of statistics on what we were looking for in terms of capacity, and they came back with a diagram of the SAN – it was as simple as that.”

RYAN SCLANDERS  
IT Infrastructure Services  
Team Manager  
CMA

VMware virtualisation. CMA has been running Compellent for over a year and a half now and has established a mature configuration. CMA currently operates two separate Compellent systems. The first, a 14 TB SAN, takes care of the live production environment, while the second, a 19 TB SAN, runs a combination of host-level disaster recovery (DR) and corporate services, such as Microsoft Exchange, authentication servers, databases and test environments.

## COMETH THE HOUR, COMETH THE SAN

Before Sclanders joined CMA, there was no SAN environment. The production environment operated solely on a packaged server cluster without direct attached storage. Sclanders audited the company’s requirements for existing systems and future scalability and quickly discovered that the legacy environment simply wouldn’t cope with the sophisticated real-time services CMA wanted to offer its clients. There was a clear need to improve and enhance storage capabilities. So how did Sclanders arrive at the decision to purchase Compellent over any competing offerings available?

“We had demonstrations and workshops with Compellent and decided that because of the ease-of-use and compatibility with virtualised environments, Compellent’s innovative architecture and tiered storage feature made it an ideal solution for CMA,” he explained.

Sclanders identified three key requirements for the infrastructure. The first was to be able to build a scalable central production solution which would enable the company to grow its databases and access historical data. At that time it already had in the region of a 100 databases across the board in its production environment. Most of them were in the region of 40 GB to 60 GB each and were extremely transaction heavy. The second requirement was to implement host-based recovery, an option that CMA’s previous system did not offer. The third requirement was to build a

shared infrastructure, where CMA could host application servers in-house for customers and undertake the responsibility of managing client systems.

## TIERS OF JOY

Today CMA operates a Fibre Channel solution, with both SANs running in a three-tiered configuration of 15,000 RPM, 10,000 RPM and SATA disks. Databases find their level from the top, across all three tiers, with frequently accessed data remaining on the fastest Fibre Channel storage, while archive information finds its level on SATA. A large virtual environment of around 100 virtual machines sits on the second and third tiers. In general, around 60 per cent of data sits on the fastest, most accessible storage, virtual application servers sit in the middle and all historical data sits on the SATA disks. All tiering is automated through Compellent’s Data Progression, cutting administration time, reducing overall storage costs by moving data at the block-level between tiers of storage based on frequency of access and eliminating repetitive manual transfer of data between tiers.

Virtualisation has perhaps been the single greatest enhancement for CMA, in terms of manageability, cost savings, space reduction and environmental impact. Instead of nearly 100 physical server boxes, each dedicated to a single client without any real redundancy, the IT infrastructure services team now maintains over 100 virtual servers on just four physical boxes – a massive saving in terms of administrative overheads, energy costs, data centre space and regular capital expenditure. Thanks to the Compellent SAN’s storage virtualisation, these savings are even greater. CMA has been able to reduce management costs, avoid unnecessary disk purchases and minimise power costs.

“In the last six months alone, the Compellent SAN environment has saved CMA about £300,000,” concluded Sclanders.