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NEW APPROACHES TO MODERN TRADING ROOM DESIGN

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Introduction – Better, Faster, Cheaper

When Sydbank looked to upgrade its trading room, it realised that a total makeover was in order: a new holistic approach in terms of design and technology to meet the demands of modern and future trading markets.

Top of the bank's goals: ease of use for traders; simplicity in making changes, upgrading systems and maintenance; a reduction in information services costs; and cost savings through a "green" approach to power, heat emissions and cooling.

Turning to WEY Technology, Sydbank installed the WEY Allocation System, which allows it to situate the trading room's core technology in a remote computer suite, and have it drive information to streamlined, ergonomically-designed, trader desktops.

The result is an innovative environment that is truly a "base for the future – it fully meets our goals," according to Bo Bergmann, Trading Room Project Manager.

The bottom line: Sydbank now has a 21st century trading operation that is "better, faster and cheaper."

New Approaches to Modern Trading Room Design

In today's financial markets, trading firms face constant pressures in a fiercely competitive environment. Providing best execution and superlative customer service is fundamental to attracting order flow. Running trading operations efficiently is also an imperative, to minimise costs internally and to offer best value to customers.

Despite the increase in recent years of automated and algorithmic trading, the human touch is as important as ever in financial trading. Traders bring a wealth of experience to the art of trading, even when it is driven by computer-generated indicators. Their experience and relationships are vital to seeking out liquidity and efficient execution.

Traders also play the leading role in rolling out new high-margin products, where manual execution is the only viable mechanism. As one set of products becomes standardised and commoditised – and hence destined for automated trading – so new products will be created that will require traders' specialist skills.

Traders are expensive resources and trading firms need to maximise the return-on-investment in their human capital. Providing trading staff with an environment to allow them to work efficiently, with on demand access to the information and technology they require, will increase the return on investment.

Trading operations overall need to be agile and flexible in order to meet ever changing demands and to rapidly exploit business opportunities. The regrouping of traders to react to – even pre-empt – market demand, requires trading positions that can be immediately configured to individual trader's preference and information needs.

At the same time, management and operational costs of trading operations need to be driven down in reaction to the ever downward pressure on margins. Whether costs are reduced through sharing of information services, through a reduction in maintenance costs, or change management costs, it all adds to the bottom line.

So too does any reduction in energy costs. Trading firms are becoming wiser to their "carbon footprint" and the financial benefits to be realised by reducing it. Cutting down on both direct power costs, and the cost of cooling the technology-rich work environment are high on the agenda of those who run the trading business.

Fortunately, new approaches to trading room design, allowing the remote deployment of both servers and desktop PC hardware, together with dynamic allocation of resources to facilitate 'hot desk' working address these key requirements for agility, flexibility, manageability and cost containment.

This industry briefing explores offerings from WEY Technology and presents real-life benefits as experienced by Sydbank, a leading Danish bank.

Sydbank Builds A Better Trading Room

About Sydbank

Sydbank is a leading Danish bank formed in 1970, serving more than 40,000 customers, and with 110 branches in Denmark, three in Germany and a Swiss subsidiary. Its Aabenraa headquarters trading operation serves both institutional and retail customers. Institutional business is with corporations and asset managers, while retail customers are serviced via investment centres throughout the country. The bank trades equities, bonds, commodities and foreign exchange, and is a key participant on the Copenhagen Stock Exchange.

The Legacy Challenge

In the summer of 2006 the executives at Sydbank determined that their existing trading room infrastructure would soon require updating. The capacity of the incumbent Reuters PRISM video switch had been exceeded – it covered just two-thirds of the trading room and was capable of switching just two out of four trader screens – and it was also showing limitations related to monitor resolution.

Moreover, the setup for each of the bank's 90 traders was overly complex, both in terms of usability and manageability. A typical trading position comprised two PCs, with two keyboards and mice, and up to four screens – for market information from Reuters and Bloomberg and transactional services including Reuters Dealing and EBS. There were also trading support applications, including spreadsheets running on the PCs, the IBS system for Danish bonds, and risk management systems, such as Murex. To that was added voice communications – two phones and intercom boxes.

The net result was that the trading room technology was both lacking in functionality but was also difficult and costly to manage, in terms of adding screens and information services, adding and moving traders, and servicing equipment when faults arose.

According to Bo Bergmann, Project Manager for the trading room upgrade project, “The complexity of the environment meant that, for traders, working out which piece of equipment to use for each system was difficult.” Reliability was a concern too, “There was a lot of cable and a lot of places it could go wrong,” says Bergmann, who notes that “We incurred a lot of costs in the past.”

Those costs were very visible when changes were required to a trading position – to add or move a trader, or change services delivered, for example. On average, each trader moves positions once per year – which equates to 90 changes per year!

“We incurred a lot of costs in the past.”

“It had become frustrating and it was taking a lot of technicians,” says Bergmann. In fact, some changes required as many as seven different internal departments or vendors to complete, he says, which consumed significant management time and delayed the process.

The “green factor” had also become apparent, with significant heat being generated from the traders' PCs, which were generally left running all day and night, and so consuming power even when they were not being utilised. The costs related to wasted power and inefficient cooling needed to be addressed.

In an Ideal World

When it came to considering the future of its trading room infrastructure, Bergmann and his colleagues began by determining the key functional and operational requirements for a replacement to the incumbent. These included:

- Stability and reliability, 24 hours a day, every day.
- Ultra-low or latency-free performance guaranteed, especially for transactional services, like Reuters Dealing and EBS.
- Hot desk capability, so traders can access all their services and systems from any position, allowing them to sit at any position.
- Ease of adding traders and configuring the services and systems they require.
- Simplicity and speed of adding and changing services delivered to traders.
- Ease of maintenance for servicing, troubleshooting and upgrades.
- Overall reduction in costs for ongoing management and maintenance.
- Ability to share information services and so reduce data vendor costs.
- Reduction in power, heat emissions and cooling costs. Noise reduction.

Exploring the Options

To achieve the desired requirements, a complete redesign of the trading infrastructure was the only viable direction. Fundamental to addressing issues of agility and flexibility was that a “virtualisation” approach be adopted, where traders would not be required to operate from dedicated positions, but could move around freely, or “hot desk”.

As well as hot desking, simplicity was important, allowing traders to handle the different information services and support systems efficiently. Reducing desktop complexity and clutter was therefore also an imperative.

In addition, ergonomic factors were considered, including reducing noise from PC system units, and cutting down on the heat generated by them. In short, the new trading room should allow the traders to work comfortably and efficiently enabling them to improve focus on their jobs.

Next, the Sydbank team considered various technology alternatives as potential solutions. Software-based desktop virtualisation offerings – such as those from Citrix Systems – were attractive in theory, but in practice are not proven to deliver the low latency requirements of Reuters Dealing or EBS.

Sydbank also looked at offerings from Reuters – after all the PRISM video switch it installed in the early 1990s had served them well. In fact, in 2004 Reuters went to the market to determine the best partner to work with to enable divestment of the PRISM product line and chose WEY Technology to be that partner. The migration was an extremely successful program for clients, Reuters and WEY Technology. As WEY Technology had worked closely with Sydbank during the migration program, Sydbank turned to WEY to see what they could offer.

As a result, Bergmann and his colleagues became acquainted with the WEY Allocation System and its approach to remote deployment of trader workstation hardware.

The WEY Forward

The WEY Allocation System provides for flexible distribution and shared use of multiple information services or systems, across any number of trader workstations. Trader desktop screens, keyboards and mice are driven from a remote, centralised computer facility, where PC units and other hardware is located.

Flexible distribution allows for video signals, from market data servers and PC system units, to be routed to any screen on the trader desktops. Traders select sources and target screens via the single keyboard, using function keys and a programmable colour LCD display.

Should a trader move physical desks, they simply log in from their new position and they have immediate access to the data services and systems that they are authorised for. Thus, the move, add, change (MAC) process is greatly simplified and expedited, effectively an instant, zero-cost, process.

Shared access – whether of view only or transactional services – allows costs to be minimised. Access rights and priority levels for each trader are defined by the system administrator.

Remote installation allows market data server hardware, the video and data switch system and PC system units to be located in a central computer facility, with video, keyboard and mouse signals directed over structured cabling to the trading room, over distances of 300 metres for copper cabling, and 10 or more kilometres for fibre optic connections.

Installing trader workstation components centrally provides for much improved manageability and increased security. Both routine and emergency maintenance of PC units, and rolling out of upgrades, is easier and quicker, resulting in less impact on trading, and reduced costs.

“Central siting provides for much improved manageability and increased security.”

Adding new services and systems is also simplified. Testing can be controlled more effectively by enabling a new service or system to be configured in the central computer facility; then deployed

to selected users as a source on the WEY Allocation System. This allows traders to be involved at a much earlier stage with no disruptive installation and a more rapid debugging process. This allows the rapid and controlled deployment of new information systems without large resource or budget commitments.

Moreover, the central installation of the majority of the hardware and associated software components that drive trader workstations provides for much improved security. Access to and backup of vital data, such as spreadsheets driving analytics and risk management is controlled and can be audited. Regulatory edicts regarding access to data can also be complied with more readily.

Cooling of the computer facility is more efficient than cooling a trading room, and in a controlled environment, PC system units can be scheduled to hibernate overnight. All of which leads to a reduction in power costs.

Another benefit of the central design is that far fewer components are installed at each trader position, so overall the heat and noise generated within the trading room is reduced, also leading to reduced costs and more ergonomic, efficient working environment.

Sydbank's New "Nice Environment"

Sydbank's new trading room went live on April 14, 2009, representing the culmination of 15 months of work, including system evaluation and selection, installation and deployment, and testing and commissioning.

In the new trading room, trading positions have four screens, controlled via a single WEY MK06 keyboard and mouse. Bergmann says that the new setup is more usable, with traders being able to switch between all services with a single keystroke, causing function keys to be reprogrammed as appropriate. In short, he emphasises, "Traders can now really focus on what they are there for – trading."

The hot desk capability has been a real success, according to Bergmann. On holidays, when the room is semi-staffed, traders tend to sit close to one another, for better communication. In the unlikely event of an equipment failure, a trader simply moves desks, logs in, and continues working as normal. And the cost of adding or moving a trader within the room has dropped to zero, he adds.

"Traders can now really focus on what they are there for – trading."

All information services are delivered via structured cabling from the central computer room, located in the basement of the headquarters. Thus, the complexity within the trading room – PC system units, information services, and associated wiring, has been much reduced. Disruptive IT staff visits to the trading room have been virtually eliminated.

Changing the mix of information services delivered to each trader is accomplished within the computer room, also without disruption in the trading room itself. In fact, Bergmann notes that a number of traders are switching from Reuters to Bloomberg for data, with ease.



Traders access all data services via a single keyboard

Being able to test new systems in the controlled environment of the computer room has been a benefit, including the ability to evaluate and configure new systems without impacting the trading room. Roll out is simple - achieved by hooking in the system to the video and data inputs of the WEY Allocation System.

Says Bergmann: “We are currently looking at changing one of the trading systems, no problem, they setup the new system in the basement, do the initial testing and then create a new source on the allocation switch, and than they can start testing in the trading room.”

Sydbank has future-proofed its installation, providing 480 video inputs (which can be readily expanded to 512) and 200 keyboard inputs.

There have also been significant energy savings. Heat from the trading floor (systems, lighting, people and the sun) has been reduced by 16% during trading hours, from 35kW per hour to less than 30kW per hour. As a result, the cooling system for the trading room uses just 5,400kW of electricity per year, down some 800kW from previously.

“It’s a nice environment”

And for the traders, working conditions have seen a major improvement, in terms of both a better climate and through a

significant reduction in background noise, previously generated by PCs. “It’s a nice environment,” Bergmann says.

In the computer room, hardware and its power consumption can be better managed, says Bergmann. By sharing services across traders, the number of PC system units has been reduced to about 150. And it is now possible to shut off systems out of trading hours when they are idle. Cooling the equipment room is also more efficient, he says.

Implementing disaster recovery is also being simplified, through the installation of six trader desktops at the bank’s DR site, some six kilometres from the bank’s headquarters. If the main trading room needs to be evacuated or becomes unusable, all of the information services and support systems running in the computer room can be fed to the backup site. Traders there will have full access to the systems that they normally use.

Conclusions

As demonstrated by Sydbank’s installation, the benefits of adopting a centralised approach to delivering information services and support systems to trading rooms are many – flexibility, ease of configuration and maintenance, expedited introduction of new services, security, and reduced power costs.

Sydbank’s experience has been wholly positive: “We see the new setup as a base for the future. It fully meets our goals and we are quite confident that we are well prepared for the future solutions that we will require in our trading environment,” says Bergmann.

The WEY Allocation System provides the essential platform around which to design such a centralised system, bringing unique benefits including hot desk capability, ease of configuration, sharing of information sources to reduce costs, as well as ease of use at trader workstations.



Contact WEY Technology

Find out how your organisation can benefit from WEY Technology solutions, just as Sydbank built its trading room of the future.

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