

Standard Bank

Case Study

A move to a new London landmark headquarters built to the latest environmental standards triggered an IT revolution for a top international bank.

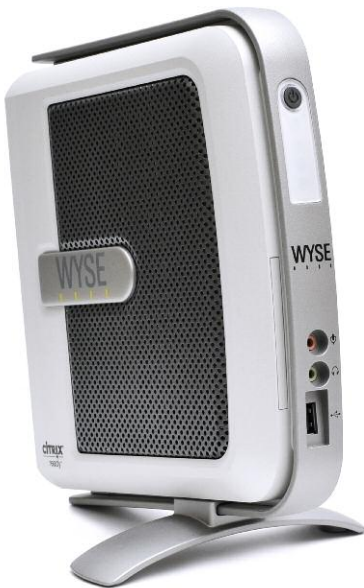
Today, Standard Bank is reaping the benefits of a completely new Wyse thin computing and VMware virtual desktop infrastructure (VDI) that was implemented successfully in less than a year and is one of the largest in Europe.

Standard Bank is a leading African banking group focused on emerging markets globally. It is South Africa's largest bank, distinguished by its extensive operations in 17 African countries. Outside the African continent, Standard Bank Group operations span to 16 countries, with an emerging market focus. The Group had total assets of over R1 509 billion (approximately US\$162 billion) at 31 December 2008, with more than 50 000 people employed worldwide.

Challenge – Moving to 20 Gresham Street

London is the headquarters of Standard Bank's international division. The office was established in 1992 and employs over 900 staff. Rapidly developing into a leading player in commodity-related financial services in London, Standard Bank outgrew its existing office space and began a search for a new London head office.

In 2008 the bank signed a lease for 20 Gresham Street, a high quality new office building closer to the centre of the City of London. Planning for the move to 20 Gresham Street started in July 2008 with the deadline for transferring all operations to the new building fixed for the end of July 2009. The bank's IT team therefore had exactly a year to design and deploy the systems for the new building.



Viewpoint

‘Our staff connect an array of devices to their desktops from simple USB keys to card scanners, drives and all sorts of other devices. We have to support this and Wyse TCX virtualisation software means we can do this at each desktop rather than operate USB port stations. This and how the Wyse thin client TCX software supports rich multimedia applications were hugely influential in our choice of Wyse.’

JOEL KING
CORPORATE INFRASTRUCTURE SERVICES –
INFRASTRUCTURE ARCHITECT
STANDARD BANK PLC

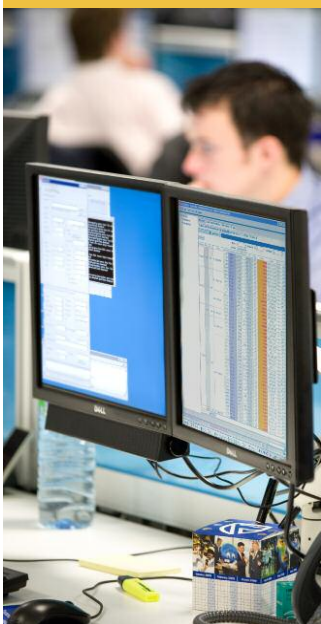




Strength

‘By consuming a third of the electricity, thin client computers gave us much more flexibility and combined with VMware and Wyse virtualization software we realized that we had a viable solution for delivering the applications we needed within the building’s environmental parameters.’

JOEL KING
CORPORATE INFRASTRUCTURE
SERVICES –
INFRASTRUCTURE ARCHITECT
STANDARD BANK PLC



Energy efficient excellence

20 Gresham Street provides the bank with first class facilities and a prestigious location. The building is built to high quality specifications and has a BREEAM Excellent rating for sustainability. BREEAM is the leading and most widely used environmental assessment method for buildings around the world. It sets the standard for best practice in sustainable design and has become the de-facto measure used to describe a building’s environmental performance.

The building’s environmental features concentrated minds on what direction to take for the IT systems used by the majority of the bank’s staff. As Joel King, one of the two IT architects involved in the project explains: “Two of the floors had air conditioning that was designed for one person per 10 square metres. But we needed to have one person per 7 metres, which meant that we had to find ways of reducing the heat outputted by the office IT and the power supply.”

One option would be to replace the existing air-conditioning but the bank decided to use the building’s environmental specifications as an opportunity to explore more energy efficient IT options.

This led Joel and his colleague Paul Cotgrove to do in-depth testing of the electrical power consumption of desktop equipment. As a result, the team evaluated thin computing technology as well as traditional personal computers, plus the environmental impacts of the other desktop kit including phones and displays.

Solution – Going for VDI in its entirety

The energy efficiency analysis led the bank to decide to move away from a largely PC infrastructure to one based primarily on thin computing and virtualisation software. A series of pilots during summer 2008 evaluated all the vendor and technology options available and resulted in the bank selecting a virtual desktop infrastructure (VDI) solution based on Wyse thin clients, Wyse virtualisation software, and VMware View.

“We went into energy efficiency in fine detail and did extensive testing of the available kit. Selecting the latest PC technology meant that the desktop IT could just about meet the criteria but it was a very tight fit and left no room for error. By consuming a third of the electricity, thin client computers gave us much more flexibility and combined with VMware and Wyse virtualization software we realized that we had a viable solution for delivering the applications we needed within the building’s environmental parameters”, says Joel.

The decision was not without some risks because the VMware technology had only just been introduced – in fact, the bank did its pilot based on a beta version and signed off on the design on December 2nd 2008 a day before the software was commercially available. But, the tests had revealed that Wyse and VMware were a winning combination with VDI giving the bank considerable performance benefits over competing solutions.

As Paul Cotgrove explains: “In the pilot VMware View was everything other products weren’t. It made creating a virtual desktop infrastructure so much simpler for us. In particular the software’s superior storage virtualization addressed the physical restrictions that we had on storage.”

The Wyse thin computing hardware and software also stood out from the competition. A richer feature set answered the bank’s requirements for greater flexibility in how they deployed thin clients across their business.





Achievement

‘In the pilot VMware View was everything other products weren’t. It made creating a virtual desktop infrastructure so much simpler for us. In particular the software’s superior storage virtualization addressed the physical restrictions that we had on storage.’

PAUL COTGROVE
CORPORATE INFRASTRUCTURE
SERVICES –
INFRASTRUCTURE ARCHITECT
STANDARD BANK PLC



The Wyse support for USB devices was especially critical, as Joel King explains: “Our staff connect an array of devices to their desktops from simple USB keys to card scanners, drives and all sorts of other devices. We have to support this and Wyse TCX virtualisation software means we can do this at each desktop rather than operate USB port stations. This and how the Wyse thin client TCX software supports rich multi-media applications were hugely influential in our choice of Wyse”

In the pilot stages, the IT team had worked with their technology partner CAE, which provided invaluable technical support on the setting up the trials. CAE specializes in offering a unique combination of solutions and services in all core infrastructure areas including networking, datacenter, virtualisation and client. Standard Bank drew on this expertise to design the architecture of the new VDI infrastructure in greater detail.

The solution is designed to ensure end users notice no difference in performance to the previous system. The prime users of the new Wyse thin clients are the back office teams who access both mainstream business and specialist banking applications typically on two screens. To meet this requirement, the team chose Wyse V10L thin clients with support for dual screens. The V10Ls are configured with Wyse ThinOS, which is optimized for use with VMware View, delivering a fast boot time, as well as virus and malware immunity.

Applications and user profiles are clustered together, minimizing any latency when a user logs onto the system and accesses their personal desktop. The system is specified to support over a 1000 end users and runs on dual, remote data centres to provide high availability and recovery in the event of any incidents. For virtualising the applications, the team investigated several options before settling on ThinApp, which enabled personalized application settings to be stored efficiently and minimised the application base image.

Implementation

The implementation started in earnest once the team completed a final pilot of the VDI solution. Between January and February 2009, a cross section of employees switched over from their PCs to Wyse thin clients accessing their own personalized virtual desktops. The success of this last pilot cleared the way for the team to start switching staff over to the new VDI solution.

The full scale migration from PCs to Wyse thin clients running VDI started from March 2009. The goal was to get as many people onto the Wyse thin clients before the move took place. All of the earlier preparatory work paid off at this crucial stage, enabling the team to keep pace with their target of transferring 50 users a week.

Direct access to both experts at CAE and Wyse also proved critical when issues were encountered, enabling these to be quickly resolved and the project to get back on schedule quickly. One particular challenge was discovering which applications could be virtualized. Key specialist applications like SunGard Front Arena and Bloomberg were virtualized, taking advantage of Wyse TCX Multimedia to run effectively on a thin client. In the final analysis, only a handful of applications couldn’t be virtualized.

The physical move took place over several weekends in July 2009. Although still a massive job, the thin clients made the installation a relatively smooth process because of their plug and play functionality. Thin clients were shipped over, fixed under the desks and plugged into the power and network with minimum failures or set up problems compared to the PCs.





Ease of support

‘We’re finding the new infrastructure much easier to support on a daily basis. The time taken to resolve calls is much improved because we can work on the issue remotely and quickly. The process of setting up new applications for an individual user also now takes a matter of minutes.’

PAUL COTGROVE
CORPORATE INFRASTRUCTURE
SERVICES –
INFRASTRUCTURE ARCHITECT
STANDARD BANK PLC



First hand benefits

The move went smoothly so that on 3rd August 2009 the whole office had relocated into the new headquarters building.

The new VDI infrastructure is fully up and running in the new building thanks to the hard work of Joel and Paul’s team. Outside of the trading floor users, they had a target of getting 70 percent of the remaining users onto the Wyse solution. By the time the office move was completed, the team had 80 percent transferred to the VDI solution, with around 600 or more Wyse thin clients shipped over and installed.

The response of the users to VMware and Wyse solution is positive. As Joel says: “We wanted users to have exactly the same experience on the Wyse thin clients as they had on their desktop PC. The work with Wyse and CAE meant that we largely achieved this with our users. Some resisted but actually we were surprised by how many users have requested that they move over to the Wyse-based VDI solution.”

This reflects both the hard work on getting the specification exactly right and how the team recognized the need to do a lot of education with the staff about the new system.

Staff also are beginning to appreciate the value of being able to log onto their personal desktop profile wherever they like in the new building. The bank expects this to be hugely useful as teams are regularly being formed from disparate members of staff.

The enhancements in remote access also are proving popular with VMware View providing a better end user experience when staff work from home or outside of the office.

The Wyse V10Ls have contributed to the improved working environment in 20 Gresham Street. Small enough to be attached under the desk, the units produce little heat and support the bank’s clean desk policy.

The major benefits of the new VDI solution lie in the significant savings that are being achieved. These include avoiding an additional charge of over a quarter of a million pounds to install a new air conditioning system. However, the greater savings come from how much easier the thin computing infrastructure is to support and run on a daily basis.

“We’re finding the new infrastructure much easier to support on a daily basis. The time taken to resolve calls is much improved because we can work on the issue remotely and quickly. The process of setting up new applications for an individual user also now takes a matter of minutes. As an extremely busy international bank, we experience a high number of desk moves within the bank, so the flexibility of virtual desktops and Wyse thin clients really helps us deliver the service that our end users expect”: adds Paul.

Naturally, the IT team has plans to evolve the solution now the bank has settled into its new office. One goal is to increase the percentage of Wyse thin client users to 90 percent. The second is to evaluate how the system could be enhanced to support other specialist applications for example smart card readers. As a result the bank is beta testing several new releases of Wyse software and planning for how it can take advantage of future upgrades of VMware technology.

August 2009 saw Standard Bank open for business in a new headquarters that reflected the rapid growth of the bank in the City. Integral to how this new office delivers exceptional quality of service to the bank’s customers is an energy efficient IT infrastructure from Wyse and VMware that will support future growth and innovation.





PAUL COTGROVE & JOEL KING
CORPORATE INFRASTRUCTURE
SERVICES –
INFRASTRUCTURE ARCHITECTS
STANDARD BANK PLC

Success

‘Throughout the process we found ourselves really pushing the technology. Wyse and the other vendors really responded well to this process, developing new solutions to our issues as they arose.’

JOEL KING
CORPORATE INFRASTRUCTURE
SERVICES –
INFRASTRUCTURE ARCHITECT
STANDARD BANK PLC



Next Steps

The VDI project is the culmination of considerable hard work by the Standard Bank team with regular support from their partners CAE and Wyse.

Combining the migration to a complete VDI solution with a major office move presented a massive challenge especially given the short timescale of less than 12 months and absolutely fixed date when the bank had to occupy the new offices.

“The VDI solution was instrumental to our successful move to 20 Gresham Street. The impact of the solution not working out would have seriously upset our plans and added significant additional costs and delay. So we’re extremely pleased that the solution is delivering what we set out to achieve within such a tight timescale” says Joel.

By pioneering VDI, Standard Bank has trail-blazed what is possible when a major financial institution implements a VDI and thin computing solution in its entirety and on such large scale.

“Throughout the process we found ourselves really pushing the technology. Wyse and the other vendors really responded well to this process, developing new solutions to our issues as they arose”: says Joel.

A good example of this process is how Wyse has added new functionality to its thin computing platform to support the specialist requirements of Standard Bank including the keyboard used by Bloomberg users.

Naturally, the IT team has plans to evolve the solution now the bank has settled into its new office. One goal is to increase the percentage of Wyse thin client users to 90 percent. The second is to evaluate how the system could be enhanced to support other specialist applications for example smart card readers. As a result the bank is beta testing several new releases of Wyse software and planning for how it can take advantage of future upgrades of VMware technology.

Conclusion

3rd August 2009 saw Standard Bank open for business in a new headquarters building that reflects the rapid growth of the bank in the City and meets tough environmental standards. Integral to how this new office delivers exceptional quality of service to the bank’s customers is an energy efficient, highly flexible IT infrastructure from Wyse and VMware that supports future growth and innovation.

The race to design and implement an ambitious and innovative VDI-based infrastructure in its entirety and within a tight timescale crossed the finished line on time. Designed with great care and determination by Standard Bank’s IT architects, the new building’s IT infrastructure sets a high standard for what can be achieved with the latest in virtualisation and thin computing software and hardware when deployed on a major scale in an investment bank.

CALL WYSE: 0845 604 0038 www.wyse.co.uk

