

## Liquidware Labs Helps The Banks Group Mine VDI Solutions

*"With the Liquidware Labs Suite we gained the ability to manage the end-user experience, the foundation to manage future OS migrations, and the ability to quickly deploy software to all users."*

*- Jon Barnett, Head of IT  
The Banks Group*

Organization:  
The Banks Group

Virtual Desktop Users:  
400+

Products:  
Stratusphere FIT  
ProfileUnity  
Stratusphere UX

### Overview

The Banks Group develops land for a variety of uses, including surface coal mining, renewable energy and residential and commercial property. With operations across three regional offices, three opencast mining sites and a maintenance depot, The Banks Group's sees projects through from inception to completion, including gaining all necessary planning permissions.

Jon Barnett, Head of IT, oversees all IT requirements for the 400+ employees at The Banks Group.

The Banks Group uses Dell R720 servers and runs both their server and VDI workloads on Nimble Storage. When faced with migrating desktop services from Windows XP, The Banks Group IT staff decided to also take the opportunity make the move to a VDI architecture that would not only enhance the end-user experience, but also be much more manageable and flexible. By consulting with The SITS Group, Liquidware Labs Acceler8 Partner and Center of Excellence, and leveraging the entire Liquidware Labs solutions set, including Stratusphere FIT, ProfileUnity and Stratusphere UX, Banks Group has achieved the mobility, scalability, consistency and robustness they had targeted as objectives for their VDI project.

## The Challenge

With some enterprise applications still residing on Windows XP, by the time Banks Group had moved them to Windows 7, they found themselves past Microsoft's April 2014 end-of-support deadline. The need for a rapid and reliable deployment was the catalyst for the IT department to look beyond a conventional desktop PC rollout. Having previously used Citrix to provision some server-based applications, they wanted to provide their users with a "better-than-before" experience – especially for the development offices and opencast sites. However, it was clear they would need an alternative that wouldn't require them to manage endpoints at regional and field locations. In summary, The Banks Group wanted mobility, scalability, consistency and robustness from their next generation desktops, and they wanted to mitigate the recurring CAPEX expenditure involved in hardware refreshes every five years. Mr. Barnett also wanted to implement a stateless desktop environment, or non-persistent virtual desktops. "With a stateful (persistent) virtual desktop environment, you get all the complexity of VDI on the back end and still have to manage the end-user," highlighted Mr. Barnett.

Historically The Banks Group had been using roaming profiles with the result that, depending on the age and configuration of machines, log-in times spanned from five to almost 18 minutes. When users actually did 'roam' to another location, this time increased exponentially. An extreme example occurred for one senior planner who

attended a meeting at another office, powered up a hot-desk PC, logged into a normal desktop session and went to his meeting. At the end of his meeting, the log on hadn't even finished. So he powered up his MacBook, logged into VDI, made notes from his meeting, caught up on his email and packed up to leave. The hot desk session still hadn't finished when he left nearly two hours later!

## The Solution

Mr. Barnett took advice from The SITS Group to embark on a proof of concept (PoC) for a VDI solution. "The initial cost analysis highlighted that VDI would, in fact, be more expensive than just a straight-forward hardware refresh. But the advantages of a more flexible IT environment for our work force, which also negated the need for continuous hardware refreshes at the end point, made VDI a compelling option for Banks Group," commented Mr. Barnett. The first step, prior to the PoC, was to take a complete, in-depth look at The Banks Group estate. SITS Group conducted this audit with Liquidware Labs Stratusphere FIT. Stratusphere FIT highlighted to Banks Group which applications they had, which were invoked, and how often they were invoked. The audit also demonstrated memory, IO loads and some network latency.

"We stood up a dedicated VDI host for the proof of concept. We used ProfileUnity to facilitate the migration of the pilot users from Windows XP to Windows 7. We used a single golden image that had everything in it and ran the PoC with 24 users - representing a good mix of use cases," said Mr. Barnett



After the PoC Mr. Barnett had to secure board approval for the expenditure and, during this time, users who had trialed VDI in the PoC, and who were now back using their old IT environment, were constantly asking when the virtual desktops would be implemented. “One PoC user was a board member – and was 100 percent supportive of the concept, as it provided him the flexibility to utilize their home computing environment, which included a MacBook Pro and an iPad – he could also see the positive impact this approach would have in his line of business.”

Once the board mandated the change, Mr. Barnett very quickly migrated his users to VMware Horizon View and Windows 7 using ProfileUnity. Included in the initial user group were design engineers using AutoCAD. The next stage of the project will be to migrate the Graphics and Landscape teams, and staff using laptops. Mr. Barnett uses VMware Mirage to manage desktop images in their environment, while more than 85 users have been migrated to VMware View.

“With the best will in the world, it’s too difficult to capture complete personas when migrating. Drive mappings, printer settings, ODBC, custom dictionaries, etc., will undoubtedly get lost during migration. Using ProfileUnity made it as slick as possible, and with ProfileUnity you can truly have a stateless desktop – there’s no bloat in the virtual OS and it is much more storage efficient.”

Interestingly, the end points Mr. Barnett uses are repurposed desktops running Igel’s UDC software that ‘converts’ them into thin clients. “Our finance director, a heavy Excel user, was amazed that the oldest PC we have (that coughed dust over his desk when we turned it on!) provided him an excellent user experience.”

## The Results

Mr. Barnett now monitors his users’ experience with Stratusphere UX. “vCenter Operations (vCOPs) for View [now vRealize] is great at telling me what is happening to the Virtual PC and its infrastructure environment, but it’s limited in what it tells me about the detail of the user experience. Stratusphere UX can tell me what is happening in my user environment at an application level, and also provides me a ‘rear-view mirror’ perspective. Without UX I can’t look at what happened yesterday, or the day before – the event log has rolled over, or has nothing in it, etc. – but with UX ,I now have a robust tool set for diagnostics and troubleshooting.”

To summarize, Mr. Barnett states, “The SITS Group really helped us make good business, technology and technical choices; they highlighted we need to upgrade our storage and network prior to even thinking about VDI. They supported us in our user clinic sessions during the PoC and demonstrated the value in delivering and managing a VDI environment with Liquidware Labs Stratusphere and ProfileUnity products.”

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With ProfileUnity, The Banks Groups' users can transition between Windows XP, Windows 7 and Windows 8.1 if required – maintaining all the settings that make that session environment “theirs.” With Stratusphere UX providing empirical evidence, if needed, and ProfileUnity decreasing login times from over eight minutes to under 90 seconds, the new VDI environment provides The Banks Group with some clear benefits:

- Mobility for remote users, facilitating a flexible working environment that seamlessly supports hot-desking and home-working
- Improved user experience
- Agility across operating systems and applications
- Ongoing cost management
- In-depth visibility

Implementing a virtualized desktop environment wasn't justified on a cost basis: The Banks Group estimated that over a five-year period, costs for a traditional deployment were comparable to that of a VDI solution. However, Mr. Barnett notes, “What we have gained with the Liquidware Labs suite is the ability to manage the end user experience, the foundation to manage future OS migrations, the ability to quickly deploy software to all users and ensure that all users are on the same version of all software. Over time we'll be able to quantify the positive impact of mobility and productivity that are currently intangibles, but I know that today there is significantly less 'standing time' while machines boot!”

