

## CASE STUDY

# FSLogix Helps North Lanarkshire Council Solve Its VDI Java Re-direction Challenge

## EXECUTIVE SUMMARY

Faced with integrating multiple versions of Java into a single Citrix XenApp image, North Lanarkshire Council turned to FSLogix for assistance. Using Java Redirection powered by FSLogix Apps, the council was able to install all of its applications into one image, saving storage costs and valuable ICT staff time. And though the solution only recently went live, early results are very promising, with user adoption expected to increase significantly and additional applications expected to be rolled into the VDI environment.

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## HIGHLIGHTS

- > Avoided up to £30,000 in additional storage hardware and support costs by deploying a single Citrix XenApp image
- > Potential savings up to 260 support hours annually, as compared to managing multiple images manually
- > Improved user adoption anticipated by having the ability to integrate the full complement of required core business applications into the one image
- > Increased end-user productivity will lead to anticipated efficiency gains

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**JAV YAQUB, ICT PROJECT MANAGER, NORTH LANARKSHIRE COUNCIL**

### Organizational Overview

**Formed:** 1996

**Headquarter:** Motherwell

4th Largest Local Authority in Scotland  
(out of 32)

**Population:** Over 338,000

**Website:** [www.northlanarkshire.gov.uk](http://www.northlanarkshire.gov.uk)

### Challenges

- > Run multiple versions of Java within Citrix XenApp and XenDesktop environments
- > Centrally manage one image in VDI environment
- > Optimize user experience, while improving productivity and efficiency
- > Avoid increased storage requirements and associated support costs
- > Minimize the amount of development time required to integrate new or upgraded applications requiring Java components

### Solution

- > Unified Base Image Management using Java Redirection powered by FSLogix Apps
- > Citrix XenApp and XenDesktop VDI environment supporting standard desktops, laptops, and thin clients

### IT SERVICES IN THE DIGITAL AGE

In the digital age, IT services are a critical lynchpin in the trust that exists between government and the citizens it serves. On the northeastern border of Glasgow and its surrounding suburbs, North Lanarkshire Council—like the other 32 councils in Scotland—knows this well.

Like many other local government entities, North Lanarkshire Council is faced with tighter budgets and growing requirements to help serve its 325,000-plus citizens. To maintain this sometimes difficult balancing act, the council finds that technology innovation plays an important role.

“The number of applications a local council needs to help discharge its duties only continues to increase,” notes Jav Yaqub, an ICT Project Manager at North Lanarkshire Council. “VDI offers us the means to centralize the management and control of traditional web and SaaS-based applications while offering a consistent and enhanced user experience across any number of devices.”

### CHALLENGES WITH CITRIX VDI SOLUTION

This is one of the reasons North Lanarkshire Council looked to virtual desktop infrastructure (VDI) as a means for streamlining how its employees access critical business applications. A little less than two years ago, North Lanarkshire Council selected Citrix XenApp and XenDesktop to power its VDI initiative. It was the refresh of an earlier Citrix deployment being used predominantly for remote access.

“The council was using Citrix but overlooking its full potential” Yaqub says, who was brought on a little more than a year ago to help spearhead an effort to help get the VDI project back on track. “There was a lack of clarity around what VDI could do for the council,” he continues. “I could see it being a game-

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changing business enabler, giving them greater flexibility, mobility, security, and features to manage their application environment while delivering a virtual desktop that offers a much better user experience than that from the current environment.”

The prior Citrix environment ran on a legacy infrastructure that delivered poor application performance and was becoming unreliable and unsupportable. “Users didn’t particularly like the environment and were deterred from using it due to the time it took to log in and the lack of performance and functionality once in,” Yaqub explains. “The environment basically consisted of individually published applications and a very basic virtual desktop.”

There were a number of deficiencies such as the inability to copy-and-paste between different applications within their virtual sessions. In addition, due to the differing requirements for Java, some core applications were unavailable. “We have three heavily used business-critical Java-based applications running within the Citrix environment,” Yaqub says. “The problem is that they require different versions of Java to operate. Like many other IT organizations, due to security protocols and interoperability reasons, as well as the fact that some applications are managed outside of our environment, we simply cannot run all of our Java-based applications on the latest version of Java.”

“The bottom line is that we were struggling with our Citrix application deployment, particularly Java, and it wasn’t going to progress without fixes that would allow us to manage multiple versions of Java through some form of unified image management.” Yaqub observes. As a result, he and his project team went in search of a solution that would meet these business requirements.

### **RUNNING MULTIPLE VERSIONS OF JAVA WITH FSLOGIX**

Their search led them to FSLogix. “There was really nothing else out there that could neatly solve the issue of multiple versions of Java across the applications running within

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our VDI,” Yaqub recalls. “For our Java challenge, all roads pointed to FSLogix. It ticked all the boxes, with ease of implementation and management at the top of our list. It also was quite cost effective. We particularly like the flexible modular licensing that allows us to pay for the capabilities we elect to deploy now, while adding other modules farther down the line driven by business needs.”

Once the North Lanarkshire Council project team selected FSLogix, they had it up and running in a matter of two days. “It was a good experience. There isn’t anything tricky or complex about its deployment. And we also had the FSLogix Support Services engineers at our disposal to answer any questions that arose and to help us navigate around any obstacles that we encountered,” says Cheryl Scott, a project technical analyst at North Lanarkshire Council.

FSLogix Apps is fully integrated with other components of the VDI solution—Citrix XenApp, Citrix XenDesktop, and AppSense Application Manager. “In regards to a complete VDI solution, I don’t think any one product has the full toolset—neither Citrix, AppSense, Microsoft, nor FSLogix,” says Yaqub. “It’s an amalgamation of all these products, operating as an integrated platform, that gives us a robust working solution which covers our VDI business requirements.”

North Lanarkshire Council currently publishes about 30 different business applications within its VDI, though it plans to add more over time. The council has a mixture of traditional, web, and SaaS-based applications. Most are proprietary and some require different versions of Java.

To address this issue, FSLogix uses advanced filtering and image masking to enable Java redirection. This allows only those applications approved by the ICT department at North Lanarkshire Council to run on these older versions of Java, thus improving the council’s overall security posture. All other applications default to the most current version of Java the council has deployed.

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### **DRIVING USER ADOPTION ... AND OTHER BENEFITS**

Though live for only a couple months, the next-generation VDI environment for North Lanarkshire Council holds much promise. “The new environment delivers very high performance and is powered by a new dedicated Cisco UCS server cluster. To serve the current user base, we have deployed 40 virtual XenApp servers and publish Microsoft Windows 7 sessions as the virtual desktop as well as around 30 line-of-business applications,” Yaqub says. “Users tell us that it delivers a much better experience than their desktop machines. It’s changing the way staff consume our IT services. Indeed, rather than using the VDI to access stand-alone applications from a physical desktop, users like the new virtual environment so much that they want to use it as their main desktop.”

Another benefit users like is the ability to copy-and-paste between different applications running in VDI. “This improves their productivity while increasing the stickiness of the VDI with end users,” Yaqub comments.

ROI numbers are just starting to roll in. “We initially thought that we would need to manage multiple VDI images,” Yaqub relates. “But we were able to get everything into one image with FSLogix, reducing support hours and thereby lowering costs.” Specifically, needing to maintain two images would have incurred additional storage costs.

“One image actually multiplies storage requirements up to four or five fold—typically involving a production image, a development image, a test image, a number of backups, and some snapshots,” Yaqub explains. He estimates this would have tallied up to 30 terabytes of enterprise class storage, which would have added another £30,000 or more annually to the cost of the solution. And with these additional images to manage, ICT staff would have needed to allocate time to manage antivirus and application updates to them. “This easily comes to five hours or more per week, or 260 hours annually,” Yaqub observes.

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The time required to log into applications within the VDI environment has also shrunk dramatically. “It previously could take up to five minutes for some applications to login,” Yaqub says. “It now takes less than a minute, increasing the team’s productivity and efficiency.”

### **LOOKING TO THE HORIZON**

Currently, North Lanarkshire Council has about a 1,000 Citrix users, though not all applications they use are included within the new Citrix environment. “One of our next initiatives is to complete a thorough software rationalization exercise to determine redundancy and the latest versions that should be running,” Yaqub says. “This will lay the groundwork for us to move more applications into our VDI environment.”

Yaqub is quite pleased with the FSLogix Java module for now and sees other use cases for FSLogix at North Lanarkshire Council in the foreseeable future. “We’re getting ready to upgrade to Microsoft Office 2013 and are already looking at Microsoft Office 365,” he says. “I can see the FSLogix application layering functionality helping us to get Office 2007 and 2013 to co-exist on a single image to allow an orderly transition. Also, if we elect to roll out Office 365, the FSLogix Office 365 Container is a perfect fit for managing the Cached Exchange Mode. Without it, our users could face significant degradation in email and search, which would negatively impact worker productivity.”

### **ABOUT FSLOGIX**

FSLogix is the leading innovator of solutions that reduce the amount of hardware, time, and labor required to support desktop virtualization platforms. With implementations ranging from less than 1,000 to over 50,000 users, FSLogix Apps enhances the user experience while reducing support requirements for companies like Cottage Health, Philips (PHG), and City of London Police. FSLogix is a Microsoft partner, Citrix Ready partner and Best of Synergy winner, and VMware Technical Alliance partner. The company is headquartered in Atlanta, GA, with offices in Salt Lake City, Denver, Boston, the Netherlands, and London, England. For more information, visit [www.fslogix.com](http://www.fslogix.com).