



# **MOVING BUSINESS-CRITICAL LEGACY APPLICATIONS TO MODERN OPERATING SYSTEMS**

**CLIENT CASE STUDY  
BANKING, FINANCE, CAPITAL MARKETS  
SEPTEMBER 2018**

# THE MISSION: ENSURE EMPLOYEE PRODUCTIVITY WITHOUT JEOPARDIZING SECURITY AND COMPLIANCE

## CLIENT PROFILE

One of the largest banks in the United Kingdom  
Large Enterprise (10,000+ Users)  
Financial Services

## CHALLENGES

Legacy Applications without source code  
Legacy Applications that do not install on Windows® 7 or Windows 10  
Windows XP widely in use causing security concerns

## OUTCOME

Legacy Applications migrated to Windows 7 and Windows 10  
No code changes needed  
Windows XP no longer needed

## THIS CASE INVOLVES ONE OF THE LARGEST BANKS IN THE UNITED KINGDOM

When applications are unavailable, employees cannot do their jobs, money is lost both for the bank and customers, and the company is potentially out of compliance.

### BACKGROUND

In the fall of 2017, many companies were hit with “WannaCry” and other ransomware targeting the Windows platform. In some cases, these companies were still running Windows XP. Even though these companies had purchased support for these legacy operating systems (OS) and protected the environment within the security confines of VDI, the inherent security problems of these older OSes are too challenging to overcome and ultimately compromised the system. This situation eventually put banks out of compliance with the government. The only solution was to move onto a current OS which protects against the latest sophisticated attacks quickly. In that effort, the companies uncovered that the reason these applications continued to run on the older operating system was that they never worked on the newer operating systems long ago.

### THE CHALLENGE

Numecent worked with one of U.K.'s largest banking enterprises who had this exact problem. They had a significantly large Windows XP application deployment infrastructure which was secured in a VDI environment and was only available via remote access. The banking enterprise had over 13,000 Windows applications being used by its employees. Many of these applications were deemed critical for specific lines of business, as they were integral to the operations of the smaller banks which had been acquired by

the large enterprise in previous years. Immediately following “WannaCry,” the banking enterprise had been given a directive to remove Windows XP from their environment and those of its subsidiaries before the end of 2017.

Before tackling the migration of its 13,000+ applications, the enterprise performed an application rationalization project and reduced the total number of applications it utilized down to approximately 2,500. Many of these remaining applications were quickly migrated to Windows 7 or Windows 10 using standard techniques with App-V or direct installations via SCCM. However, over 150 applications could not run on Windows 7 or Windows 10 using any methods including direct installation. And many of those applications came from companies that were no longer in business. Others were written in-house, but the developers had been gone from the company for some time, and there was no source code to reference. Reverse engineering the applications would take too long and be extremely expensive. The enterprise needed a way to transition its legacy applications to Windows 7 or Windows 10, obtain patches, and reduce the risk of ransomware or other problems that were becoming prominent with applications running on Windows XP.

## **THE SOLUTION**

The large banking enterprise tried nearly every application compatibility, virtualization and deployment solution on the market. Med-V and XP Mode provided some relief, but they also raised security concerns and ultimately were not allowed by the enterprise’s security team. Other solutions didn’t offer any significant. Finally, the enterprise was introduced to Cloudpaging™ technology from Numecent.

## **THE STRATEGY**

The enterprise began by conducting a “quick pass” to package all its troublesome applications. After its first attempt, the enterprise could

successfully run over 50% of the troublesome applications on Windows 7 or Windows 10, with little time invested in learning the granular-level control options available in the Cloudpaging packaging process. Many of the applications had hard coded paths, hard coded registry information, or other properties that were easily accommodated through Cloudpaging the application to a newer operating system. Additional training and assistance was provided by Numecent to drive the success rate even higher for the remaining applications with additional complexities.

Cloudpaging quickly helped reduce the number of applications that could not be migrated to Windows 7 or Windows 10, mitigating much of the urgency and allowing its engineering resources to focus their efforts on re-engineering a significantly smaller set of applications.

## **THE OUTCOME**

Cloudpaging provided a necessary path to removing Windows XP from the large, U.K.-based banking enterprise environment before the end of 2017. The applications, easily migrated by utilizing Cloudpaging, can now be evaluated for replacement using a lower-cost process over a longer period of time, as opposed to the very expensive process that would have been needed to meet the tight deadlines to restrict vulnerabilities.

User adoption of the newly migrated applications via Cloudpaging was seamless; the applications appear and function on Windows 7 or Windows 10 identically to how they behaved on Windows XP. Successful removal of XP from the environment removed all hardware, software, and human capital costs related to maintaining the XP environment. XP Ransomware is no longer a concern for the large banking enterprise.

The original budget for this project assumed a large development effort would be needed to rebuild much of the enterprise's critical line of business software. The cost of this assumption was significantly reduced as

Cloudpaging minimized the number of applications in scope from that which was originally anticipated.

## **CONCLUSION**

The banking enterprise met its deadline, solving the problem within its timeframe by leveraging Cloudpaging as a tool for migrating applications. Much to the banking leader's delight, Cloudpaging was successful in moving Windows XP to Windows 7, Windows 10, and Server 2012 VDI environments.

## **ABOUT NUMECENT**

Numecent is a pioneer and technology leader in the rapid, secure, and friction-free provisioning of native software applications from the cloud or on-premises. Working across a range of sectors, Numecent's ground-breaking Cloudpaging technology offers a new paradigm for application delivery. It delivers native applications from the cloud between 20 – 100 times faster when compared to a linear digital download, while it can execute on the client's platform without the need for installation, ensuring absolute efficiency and ease of use. Numecent's primary customers include Cloud Service Providers (CSPs), Independent Software Vendors (ISVs), Managed Service Providers (MSPs), and Enterprises.

Numecent introduced its proprietary Cloudpaging platform and emerged into the market in 2012. The company's headquarters are located in Irvine, California with partners located throughout the world.

For more information, please visit [www.numecent.com](http://www.numecent.com).