



## OGL Computer Uses VMware App Volumes Solution to Grow Services and Save Costs in Citrix Environment

### INDUSTRY

Professional cloud and on-premises IT service

### LOCATION

Stourport-on-Severn, Worcestershire, England

### KEY CHALLENGES

- Scale VDI service for more customers and applications.
- Reduce expenses of Citrix VDI solution delivery.
- Provide full functionality of all applications.
- Deliver and manage applications dynamically, in real time.
- Give users desktop access on any Internet-connected device.

### SOLUTION

OGL Computer uses the VMware App Volumes solution to deliver 90 business applications, including CAD and NVIDIA applications, to 70 companies and their 1,700 users.

### BUSINESS BENEFITS

- Growing cDesktop VDI service revenue by 700% within one year
- Reducing OpEx of provisioning, managing, and supporting applications
- Saving 95% of IT staff time that can now be spent on R&D instead of managing golden images
- Reducing storage CapEx by 70%
- Expanding into new market sectors



Small to medium-size enterprises in the United Kingdom rely on OGL Computer for a range of cloud services, on-premises solutions, and IT support. But OGL's launch of virtual desktop infrastructure (VDI) services was stymied by the overhead of its Citrix solution and the limited functionality of other VDI delivery technologies. By implementing the VMware App Volumes™ application management solution, OGL built a multitenant VDI environment that delivers an extensive range of applications to customers in real time, with full application functionality on any device. It also reduces OpEx and CapEx.

By delivering innovative models of ambulatory care, Women's College Hospital is advancing OGL Computer, certified by Cloud Industry Forum, delivers infrastructure as a service, data recovery, and desktops as a service to more than 22,000 users in about 1,100 companies throughout the Midlands, Central England, and Wales, many of which are professional services and healthcare companies. Its flagship enterprise resource planning software, prof.ITplus, is used by about 400 retailers, distributors, and wholesalers across the United Kingdom.

Founded in 1976, OGL earns 40 million pounds (USD \$58,208,000) in annual revenue and has more than 240 employees, 25 of whom serve as the OGL cloud computing IT team.

### The Challenge

OGL had been using Citrix Provisioning Services and Citrix XenDesktop 7.6 to deliver applications to about 20 users at two customer companies, using hosted desktops based on Windows Server 2012.

"Our big question," says OGL technical architect Mark Slater, "was this: How could we grow our hosted VDI business for multiple tenants without deploying and managing unique golden images for each customer?"

A golden image is a template for a virtual machine used to make copies of the disk image. "To grow our VDI business," Slater says, "we would have to spend time managing many more Citrix Provisioning Services golden images.

"If we embedded each customer's applications in separate golden images, for the 40 customers we expected to acquire, we would literally have that many golden images to manage. Every image would also require OS and application updates, each of which would add maintenance and test versions. The demand for our staff time would be huge," says Slater.

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Mark Slater  
Technical Architect,  
OGL Computer

Another challenge, Slater says, was the demand for storage. “Each image would require about 40GB, adding up to about 1.6TB for 40 customers. With such a large number of images per Citrix server, the I/O load requires faster storage. And because Citrix Provisioning Services uses in-memory caching for disk images, the RAM size would need to increase dramatically to enable application streaming.”

It was obvious that to grow its VDI service and remain competitive, OGL would need a VDI solution that could scale.

## The Solution

Slater and three of his colleagues were tasked to investigate new technologies that OGL might use to improve or add hosted services for customers. When the team began exploring VDI delivery technologies, it narrowed its choices to CloudVolumes (now the VMware App Volumes solution), VMware ThinApp® application virtualization, and Microsoft App-V.

The team tested the three options against the following criteria for a multitenant VDI:

- Quickly deliver a range of virtualized applications to users in real time.
- Ensure that users get the full functionality of their applications—as if native—whatever the OS, and whatever the application complexity, integration, or interoperability.
- Give users easy access to their desktops, applications, and files, wherever they are working—from any Internet-connected device: laptop, desktop, tablet, or smartphone.
- Enable OGL to scale up its Citrix VDI service while controlling OpEx and CapEx.

The App Volumes solution was the one option that met all the criteria. “Applications launch immediately,” says Slater. “A really big thing for us is that App Volumes gives all applications 100 percent functionality, just as if they were installed natively to the underlying OS. This allows the software vendors to carry out remote support without the risk of them saying, ‘We don’t support our application running that way.’ App Volumes delivers huge advantages in provisioning, ongoing support, and customer satisfaction.

“We were already using VMware in our data center, so after VMware acquired CloudVolumes, we made our decision. Now we can provide real-time application delivery in multiple virtualized environments, including Citrix XenApp and XenDesktop, as well as VMware Horizon.”

Slater and a colleague on the OGL cloud team deployed the App Volumes solution into the VDI environment “in just a couple of hours. Implementation was very quick and straightforward.”

## Business Results & Benefits

By using the App Volumes solution, OGL has scaled up its VDI service. “We’ve packaged it as our cDesktop service for customers, and it’s hugely popular,” says Cindy Phillips, OGL’s marketing manager. In its first year, the cDesktop service has grown from 100 to 1,000 users and delivered a revenue increase of 700 percent.

cDesktop draws new customers that want the freedom to use their desktops wherever they are working, including at client sites, Phillips says. “For example, because we now use App Volumes to deliver video and high-level graphics, such as NVIDIA applications, we’re attracting new business from architects and solicitors [attorneys].”

The App Volumes solution now delivers 90 different applications to 70 OGL customers and 1,700 users.

Applications deploy quickly on the user desktop. Slater says, “Our ability to deploy them in real time, even attach them dynamically on a desktop while the user is logged in, really impresses customers.” Users can also easily access their desktop applications from home, in the office, or when out and about. “They report good experiences, whether on Windows-

## VMWARE FOOTPRINT

- VMware App Volumes
- VMware vSphere® 5.5
- VMware vCloud Director® 5.6

## APPLICATIONS VIRTUALIZED

- Microsoft Outlook, Office, Exchange; Sage accounting and payroll software; Google Chrome and Microsoft Internet Explorer browsers; Java client; reddit; other business and Internet applications
- Adobe Creative Suite (Photoshop, Acrobat, Acrobat Reader)
- NVIDIA, Autodesk, and other CAD, video, and graphics applications

## PLATFORM

- HP ProLiant DL360 and DL380 servers with Citrix XenDesktop 7.6
- Tier IV-aligned data center infrastructure: HP BladeSystem c7000 enclosures with HP 3PAR StoreServ tiered storage arrays, Zerto hypervisor-based replication software

## VMWARE PARTNER CERTIFICATIONS

- VMware Professional Service Provider
- VMware Professional Solution Provider

based clients, Wyse or HP thin clients, or iPads.” In addition, users have full application functionality. “Virtually every application we’ve deployed has worked completely, straight off. We’ve had to do very little tweaking,” he says.

OGL is reducing the OpEx of provisioning, managing, and supporting applications, in parallel with growing its VDI business. “App Volumes is less hassle than other VDI technologies. That’s a big benefit,” says Slater, one that continues beyond deployment to reduce the OGL help desk’s workload.

Another OpEx benefit: OGL has achieved 95 percent time savings—nearly 40 hours weekly, or one full-time employee—from not having to manage separate golden images for its first 40 customers. “And the time savings grow as we take on more VDI customers,” says Slater. “It frees up our staff to do R&D instead. With App Volumes, we can serve more customers without increasing our staffing correspondingly.”

OGL is also reducing its storage CapEx even as its VDI business grows. By eliminating so many golden images and instead dynamically attaching App Volumes stacks to just a couple of master images, Slater estimates that the App Volumes solution reduces required storage capacity by 70 percent. It also reduces storage IOPS, space, and electricity expenses.

## Looking Ahead

“VDI is our hottest selling service,” says Slater. It’s no surprise that OGL is growing its VDI services. Next steps include leveraging its OpEx and CapEx savings from the App Volumes solution and expanding the range of computer-aided design (CAD) and other high-level applications it delivers.

OGL is also looking at introducing business telephone systems into its VMware environment, says Slater. “Getting most if not all services through the cloud, in lieu of having IT on-site, is the future we see for our customers.”

