WBCM PROVIDES FULLY 3D CAPABLE VIRTUAL WORKSTATIONS WITH NVIDIA VIRTUAL GPU TECHNOLOGY
Delivering consistently great user experiences improves productivity and collaboration for remote workforces.

ABOUT WBCM

Whitney Bailey Cox & Magnani, LLC (WBCM) is a full-service, multidiscipline architecture, engineering, and construction (AEC) firm with more than 200 employees serving the Mid-Atlantic region and beyond, from five offices in three states. For over 40 years, it has provided engineering design and construction administration services for a wide range of projects. WBCM has worked with a variety of federal, state, and private companies and organizations including the National Institutes of Health, the US Army Corps of Engineers, the Baltimore Ravens, Lockheed Martin, and the Ritz-Carlton Company. From interior and landscape design to marine, transportation, industrial, and structural engineering, WBCM has won numerous awards and received extensive repeat business from Fortune 500 companies and state and federal agencies as a result of its outstanding work.

SUMMARY

- WBCM is a full-service, multi-discipline AEC firm serving the Mid-Atlantic region.
- The company’s growing reputation led to more remote projects across the U.S. and an increase in hiring.
- Users experienced declining quality and user experience the further they were from headquarters.
- NVIDIA virtual GPU technology helped lower latency, increase performance, and improve user experiences for a remote workforce.

CUSTOMER PROFILE

Organization
Whitney Bailey Cox & Magnani, LLC (WBCM)

Industry
AEC

Location
Maryland and Pennsylvania

Employees
200

Website
https://wbcm.com/
CHALLENGE

Running an AEC firm for more than 40 years is no small feat. Over those years, WBCM has seen both the size and the complexity of their projects increase. As the firm’s reputation for quality spread, they began to work on more remote projects across the US. With a small IT department of four, Chris Calaf, VP of Information Technology at WBCM, has had to keep up with the technology advances and new applications that its engineers, architects, and designers need to deliver such a diverse project portfolio. Today, the company relies heavily on applications like AutoCAD, Plant 3D, Civil 3D, MicroStation, ArcGIS, and Revit.

With 200 engineers simultaneously accessing the network, Calaf and his team struggled to manage latency. Employees were also experiencing a significant decline in quality and user experience the further they were from headquarters. Collaboration between offices became bottlenecked as teams tried to copy, save, and exchange files. And remote workers in the field were unable to access designs on the job site. All of these factors, combined with a hiring spurt, made provisioning new staff and managing IT costs a challenge for the team. “We knew that we needed to provide better access, consolidate resources, and ensure higher availability and agility when it came to provisioning resources,” Calaf explained. “We needed something that would align with the work we were doing. VDI was the solution.”
“One of the things that we’ve always stressed in this entire [VDI] process is the user experience. I can never take a workstation off an employee’s desk if they don’t have the same experience as they would in the physical world.”

Chris Calaf, VP of Information Technology, WBCM

SOLUTION

For Calaf and his team the goal was clear—he wanted no compromise in the technologies being delivered to his users. The team wanted to make sure that the technology aligned with their business, all of their employees were billable, and applications were fully utilized. “Once we saw the NVIDIA virtual GPU partnership with Citrix and Autodesk was gaining momentum, we felt it was a technology stack that was more attainable for a company like us. So, we started digging into virtual desktops a little deeper.”

To start, Calaf did a complete hardware refresh and introduced employees to VDI and what he called the WBCM Cloud. The team upgraded to Citrix XenServer and Citrix XenDesktop, added NVIDIA virtual GPU technology, and leveraged Goliath Technologies Performance Monitor to proactively troubleshoot. Next, Calaf began a refresh to NVIDIA Tesla M10 GPUs and the latest GPU virtualization software, the Quadro vDWS and GRID vPC. The refresh to Tesla M10 with Quadro vDWS and vPC was driven by the increased graphics requirements of their Windows 10 environment and the increased use of the latest engineering design packages.

“We’ve gone from designers and engineers having graphics acceleration to everyone having graphics acceleration—even standard accounting and marketing,” said Calaf. “The typical back office, accounting, marketing, and HR workforce was using non-graphical workstations and with the newly upgraded environment, they now benefit from having a virtual GPU profile. This enables them to use Windows 10 as expected, and benefit from all of the security features.” The firm hasn’t purchased a new workstation since they deployed VDI. Every employee has a virtual desktop.

Calaf explained his VDI environment, “We recently moved to a new headquarters and didn’t want to build a full data center. So VDI was important. It was much more cost effective to pay someone for cooling, heating, and power versus building a data center. Because of vGPU technology, we can provide connectivity to our users from a secure data center facility 20 miles away, which is much less expensive than building a full data center.”

Today WBCM is 90% virtualized with two offices completely on VDI. Calaf’s goal is to become 100% virtualized. For a firm of this size and project complexity, the benefits are real. Calaf clarified, “The fact that we have been able to set up these two offices with little extra capital or skill
“We attribute a lot of our success to sitting down with our employees, learning the inner workings of the products they used, and understanding that... to be successful, we need to provide them the best user experience possible. With NVIDIA virtual GPU technology, we can deliver on our promise.”

Chris Calaf, VP of Information Technology, WBCM

To learn more about NVIDIA virtual GPU solutions visit: www.nvidia.com/virtualgpu

www.nvidia.com

© 2017 NVIDIA Corporation. All rights reserved. NVIDIA, the NVIDIA logo, and NVIDIA GRID are trademarks and/or registered trademarks of NVIDIA Corporation. All company and product names are trademarks or registered trademarks of the respective owners with which they are associated. DEC17