



Future-proofing Family Fun with NVIDIA RTX Virtual Workstations



With NVIDIA RTX Virtual Workstations, Guru Studio gains more flexibility for creating popular children’s programming viewed worldwide.

A creative-driven entertainment company that’s become an animated storytelling A-lister over the past 20-plus years, Guru Studio is renowned for developing content that captivates kids and families all around the world. The studio’s award-winning programming includes such popular titles as Paw Patrol, Sesame Street’s Mecha Builders, Pikwik Pack, and True and the Rainbow Kingdom.

When the pandemic scattered its workforce in 2020, the studio moved quickly to get its artists up and running remotely to meet production deadlines. Two years in with a workforce fully ensconced in a remote workflow Technology and IT Departments made plans to create a roadmap towards a 100% virtual desktop infrastructure (VDI).



Image courtesy of Guru Studio

Summary

- > Guru Studio produces award-winning children’s programming.
- > Bulky workstations that required a large physical footprint, along with an increased need for remote workers, prompted a move towards a VDI environment.
- > A compact system was installed in the data center—using NVIDIA A40 GPUs with NVIDIA RTX™ Virtual Workstation software—to simplify deployments.
- > After a six-week rollout, the studio started onboarding new hires on the virtual machines.
- > To maximize value, specific CPU and GPU resources can be shared across multiple users and workstations become rendering nodes when not in use.

Customer profile



Organization:	Industry:	Location:	Formed:	Website:
Guru Studio	Media and Entertainment	Toronto, ON, Canada	2000	gurustudio.com



Image courtesy of Guru Studio

Challenge

While physical workstations equipped with NVIDIA GPUs kept Guru Studio on a growth trajectory for more than two decades, the need to enable remote workers during the pandemic forced the company to take a new look at its infrastructure.

“As our studio transitioned to remote work, our immediate and primary focus was to enhance our artists’ work-from-home experience,” says Frank Falcone, Guru Studio’s President and Executive Creative Director. “The old paradigms of having a workstation sitting next to a desk where a user sits down every day are largely gone. We now need to support a variety of workflows.”

The team at Guru Studio sought to deploy a compact VDI solution it could host in its data center. According to Mark Pinder, VP of Technology at Guru Studio, NVIDIA was a natural partner for several reasons. “We wanted something that would be the least disruptive as possible,” he says, noting that NVIDIA GPUs are understood and trusted by everyone in the company.

Back in 2015 Guru built a partnership with Maxon to use Redshift, a powerful rendering engine accelerated by NVIDIA RTX technology. RTX-accelerated applications enable artists and creators to interact with complex scenes using real-time, ray-traced lighting, perform faster batch rendering to speed the production process, and access amazing new AI-based creative tools.

“We wanted the stability of the NVIDIA RTX GPU driver,” Pinder says. “We didn’t want to go with another solution or a different platform and run into unexpected problems six months down the line, when it’s the worst possible time to have those issues.”

“The consensus in our industry is that NVIDIA is the way to go if you want a reliable platform. Going with anything else is potentially risky, and that’s a risk most people wouldn’t want to take.”

Pinder and his team established a set of criteria for a successful VDI implementation, striving for a seamless transition with no pipeline reinvention. The solution needed to have a small footprint, with a single control panel accessing two or three racks at most, and be cloud ready for future scalability.

With these parameters in mind, the team reached out to people they knew at NVIDIA and Dell, and the final solution came together organically.

Software

- > **Hypervisor:** VMware vSphere ESXi
- > **Graphics Acceleration:** NVIDIA RTX Virtual Workstation (RTX vWS)

Hardware

- > **Server:** Dell PowerEdge R750
- > **GPU:** NVIDIA A40

Reasons For NVIDIA

- > Powerful performance for graphic-intensive applications, including Redshift, Maya, Nuke, Houdini, Photoshop, Substance, and Marvelous Designer
- > Scalable, future-proof infrastructure that can integrate new technologies, such as NVIDIA Omniverse Enterprise and NVIDIA AI
- > Rapid deployment and simplified management
- > Greater long-term value

Solution Statement

According to Pinder, Guru chose Dell hardware because the sales team came to the table with a comprehensive package. Pinder says that his team encountered more of an us-vs.-them mentality from other server and hypervisor vendors. “With Dell, we really got the sense that they were willing to work with us to develop an end-to-end solution,” he says.

After gaining insights from a small and successful proof of concept using NVIDIA A40 GPUs virtualized with NVIDIA RTX™ Virtual Workstation software, Pinder says that Guru’s business leads and project stakeholders had the confidence they needed to make the investment. Everyone believed that the solution made a lot of sense and could be put to work without any significant impact on the user experience.

In addition to conducting the pilot with real users, the Guru team tested configurations that would enable virtual workstation resources to be repurposed as render nodes when users weren’t around. “With such a significant investment in GPUs, nothing is more frustrating than having them sit around for 16 hours of the day doing nothing,” Pinder says. “Now we have a system where, as resources become available, they can be used for rendering and immediately claimed back and given to a user if there’s a person waiting to sit down at their computer.”

The studio took about six weeks to roll people onto the new VDI platform, and the team is now at the point where new users are automatically onboarded to the VDI environment. “We hope to grow our VDI deployment and retire all the rest of our physical workstations,” Pinder says.

Results Statement

While the artists, animators, and creatives at Guru Studio benefit from a familiar user experience and even better image quality at higher resolutions, the real advantages of the VDI environment accrue to the IT and Technology teams.

Both Pinder and his team agree that NVIDIA’s VDI environment has resulted in incredible deployment simplicity. “There’s a whole level of consideration we don’t need to worry about anymore,” says Pinder. “What kind of RAM is in that machine? How much RAM? What CPU and GPU does it have? The VDI platform has allowed us to build static profiles for each department, so we know that each user is going to get an optimized setup for their role.”

In the past, Pinder says that “tons of CPU and GPU cycles would go to waste...Now we can reclaim a lot of those resources and get the most out of the investment.”

The IT team also sees great advantage in being able to access a user’s desktop and have other users look, too. Much easier than sharing screenshots and describing problems verbally, real-time troubleshooting reduces friction and delivers significant time savings, according to Pinder.

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Guru Studio





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Perhaps the biggest benefit of the VDI environment is the elimination of heavy physical workstations. “I’ve received large workstation orders several times over the years, and the first three days are just unboxing and unwrapping and pulling the plastic off of everything,” Pinder says. “With VDI, none of that is an issue anymore and there’s far less physical lifting involved.”

Pinder credits the convenience of the virtual deployment, its compact footprint in the data center, and its monitoring and management capabilities for delivering long-term value for Guru Studio. “We expect that the lifecycle of our infrastructure will be longer, and we know we’re prepared for the integration of future technologies, like NVIDIA Omniverse and artificial intelligence.”

“I’m really impressed by how far the technology has come over the last few years,” Pinder says. “I’ve used VMs mostly in a server environment, and they’re great for servers, but there’s always been this stigma that a virtual machine as a desktop is not something anyone in our industry would have considered. NVIDIA and VMware Horizon have created a solution that changed a lot of hearts and minds about the technology. We’ve been able to migrate users to virtual workstations with essentially no impact because they’re getting the exact same user experience — it’s indistinguishable from their physical machines. People who were very much against a virtual machine environment are certainly eating their words now.”

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