



# NVIDIA Delivers High Performance Campus Computing for Student Success

**NVIDIA GRID™** brings the power of NVIDIA GPUs to Citrix XenDesktop and XenApp environments to deliver virtual labs and classrooms that can be accessed from any device, anywhere. NVIDIA solutions leverage Citrix virtualization and centralized management to enable IT to better manage their infrastructure, simplify deployment, and reduce overall costs.

## The evolution of the Education industry and IT challenges!

The rapid evolution of technology is changing the way we learn, work, and teach. Schools at all levels want to prepare their students for success with instruction based on their individual needs, and empower instructors, researchers, and administrators to focus on educating. Following are the key challenges grappling the Education industry today:

- Redesign and enhance learning spaces by leveraging technology to build collaboration skills to be workforce ready
- Empower mobile teaching and distance learning
- Protect student privacy and institutional data
- Safeguard research data while providing a secure, yet flexible IT infrastructure

Read on to find out how Citrix and NVIDIA together address these challenges!

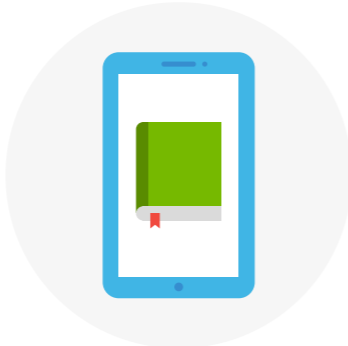


## Explore some of the key use cases for technology in education

Deliver a collaborative learning environment across devices and locations within a flexible education IT infrastructure that secures student privacy.



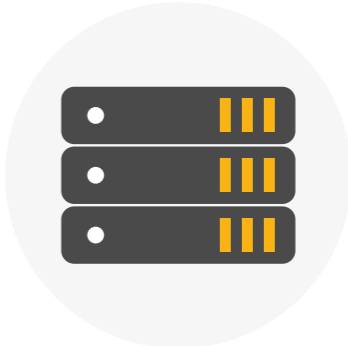
**Redesign learning spaces**



**Mobile teaching and learning**



**Protect student privacy and ensure research data security**



**Create flexible IT infrastructure**

## A superior virtual desktop experience renders users more productive

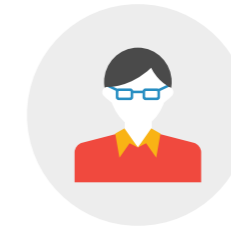
Provide accelerated virtual desktops and applications from the data center to any user, on any device, anywhere! With **NVIDIA GRID** supporting Citrix XenDesktop and XenApp environments, universities now have the ability to transform workflow and liberate students from the confines of traditional classrooms and computer labs. IT can deliver a 100% virtualized environment to users with a native PC-equivalent experience, achieving dramatically lower cost per desktop. Students and staff enjoy a high-quality, premium experience that rivals a physical PC.



### For IT

- ✓ Deliver scalable performance for virtual desktops and applications
- ✓ Improve the productivity of all users, from students to teachers and staff
- ✓ Centralize management of applications for improved manageability over physical labs

## BENEFITS



### For students and staff

- ✓ Enjoy accelerated application responsiveness and rich multimedia experiences
- ✓ Freedom to learn and work when and where they prefer, including the dorms, library, classrooms, coffee shop, or even off campus

## Customer Success Story 1 – Georgia Tech

### Challenge



Policy states that every student must provide their own personal computer



Required use of Windows-only graphic intensive engineering and mathematical software programs



Restricted access, security and support for computer labs impacted student use

### Solution



Personal devices remotely access virtualized instances of software and apps

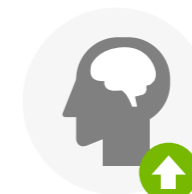


Virtualization of the physical lab workstation to create a virtual lab (VLAB)

### Performance/ Benefits Matrix



Engineering software is more accessible to a growing student population and is managed without any real estate confinements



Improved end user rendering experience, with increased speed and reduced latency

## Customer Success Story 2 – Stevens Institute of Technology

### Challenge



Decline in performance and usability as applications and operating systems continued advancing



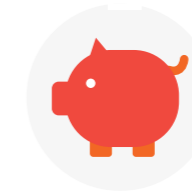
IT couldn't keep up with the demands of hard to maintain laptops

### Solution



Centralizing applications into the data center meant students could now access any of their applications, including high end engineering applications anywhere

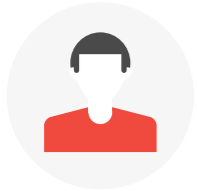
### Performance/ Benefits Matrix



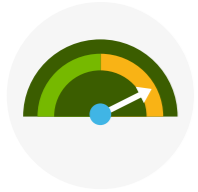
Delivering engineering applications through virtual labs improved experience for students and saved IT more than a million dollars per year in maintenance costs

## Customer Success Story 3 – Oregon State University

### Challenge

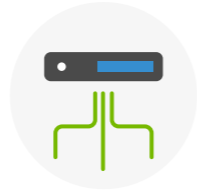


The eCampus distance learning program consists of more than 30,000 students on 36 county campuses

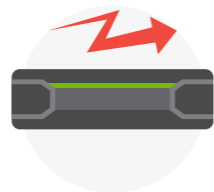


Applications used in the program are graphics intensive and require high compute power

### Solution

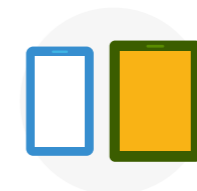


All apps and desktops are provided remotely to students via Citrix XenApp and XenDesktop

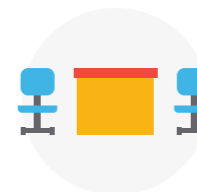


Modern applications such as AutoCAD, Cadence and MatLab are being accelerated using NVIDIA GRID

### Performance/ Benefits Matrix

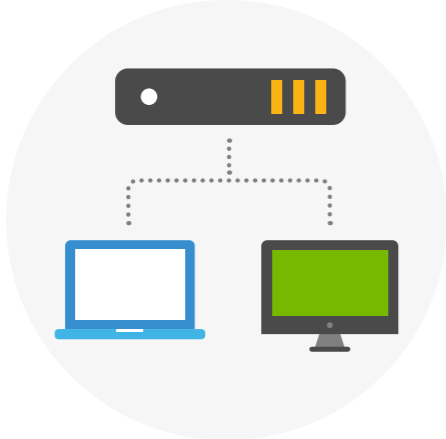


Virtualization allows students to work on a multitude of different devices and access applications 24/7



Labs have been replaced with open space for students to work together using just power, desks, and large tables

## NVIDIA accelerates IT management at educational institutions



Simplified, centralized IT management



Cutting edge technology that can be accessed anywhere on any device



Dynamic lab access for flexible learning



## Citrix and Education

Top 10 highest ranked universities rely on Citrix solutions

All US “Big Ten” Universities are mobilized on Citrix technologies

Top 10 largest US school districts run their IT with Citrix infrastructure



76% of students say they value technology because it helps them achieve academic outcomes

Citrix helps save time and reduces costs by centrally managing IT across complex multi-site campus environments



## NVIDIA and Citrix – Drives Student Success



Improved graphics fidelity over previous VDI and local laptops running applications



Performance equal to or better than laptops with local GPUs



Students can securely access their desktops, apps and data from any location on or off campus



Simplified IT management



Scalable and agile to meet future needs

# NVIDIA for Education

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## Customer Feedback

*“This major change to how we deliver technology to our students will easily save us more than a million dollars per year. Beyond that, not having to focus on supporting hundreds of individual machines means that we can think far more strategically. We are actively working with our administrators and faculty to keep identifying new opportunities to expand how we use our GRID-enabled virtual systems.”*

### **David Dodd**

CIO and VP of IT  
Stevens Institute of Technology

*“The competition among universities is increasing. We need to attract the best students, and to do this we need to offer the best IT services. We’re developing an infrastructure to stay ahead of the field.”*

### **Birol Çelik**

IT Manager  
Istanbul Aydin University (IAU)

*“It’s about being able to deliver the right tool at the right time, without the change-management process that requires two months’ notice or two weeks’ notice if you need a piece of software installed.”*

### **Didier Contis**

Director of Technology Services  
Georgia Tech, College of Engineering

*“With the release of Windows 10 and Server 2016, we are planning to upgrade our existing Citrix XenDesktop-based VDI environment. At the same time, we are testing how GPUs would improve the user experience since more and more applications and the new operating systems themselves can benefit from GPU acceleration.”*

### **René Bigler**

Head of IT  
Berufsbildungszentrum IDM

*“We’re now 80 percent virtualized, and with the excellent scalability of our Citrix solution, we can continue to grow our capabilities while keeping our physical footprint small and cost-effective.”*

### **Tobias Kreidl**

Academic Computing Team Lead  
Northern Arizona University



## Education IT solutions

Together, Citrix and NVIDIA are delivering a state-of-the-art experience for online and mobile devices while enabling universities to be more engaged with students, become more agile to better manage the IT infrastructure, and elevate teaching and learning. The coupling of this technology brings the full benefit of NVIDIA accelerated graphics to virtualization solutions, allowing more students to take advantage of accelerated virtual desktops and unlocking the promise of security, mobility, productivity and student success.

[Learn more about Citrix](#)

[Learn more about NVIDIA](#)



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