



Customer Spotlight



Purdue University: Empowering Engineering Education Through Smarter Software Delivery

Purdue University, consistently ranked in the top 10 US universities, is well known for its Engineering programs, where it ranks among the top 5 in the country. Encompassing three main campuses and eight statewide locations, Purdue's College of Engineering faced significant challenges in delivering course software applications to allow faculty to easily deliver a high-quality teaching experience and so that students can access the software they need on their course efficiently and consistently.

These challenges were particularly acute because heavy applications, multiple campuses and "outpost" statewide locations made synchronous teaching and learning a challenge. To overcome these hurdles, the IT team at Purdue partnered with AppsAnywhere to simplify software delivery, reduce support overhead, and expand access to critical scientific software for students and staff, both on campus and remotely.



Snapshot

Client: Purdue University

Location: West Lafayette (main campus), Indiana

Engineering School Students: 16,423

Total Students: 65,000

Staff and Faculty: 15,000

Applications Managed: 300+

AppsAnywhere Adoption: 2020

The driving forces behind the AppsAnywhere adoption at Purdue are Sundeep Rao, Senior Director IT, and Doug Yeager, System Administrator.

“Our single focus was to make sure that our Faculty, instructors and students expended the absolute lowest technology effort to get their instructional goals met. Making sure they found everything they needed in one place in a “single pane of glass” approach was the objective – making it easier for the IT staff to support this need was secondary, but a very nice icing on the proverbial cake,” Rao said.

Key challenges

The challenges faced by Purdue’s College of Engineering were not dissimilar to other technology schools in higher education:

- **Inconsistent software environments:** Different locations had varying hardware, with some possessing newer GPUs while others did not, making it difficult to maintain the same software versions and experience across all sites.
- **Classroom disruptions:** Faculty sought to reduce technical barriers during limited 50-minute class times, as even five minutes lost to technology issues consumed 10% of valuable instruction time.
- **Diverse student devices (BYOD):** The university had to cater to a wide range of student devices, from low-spec or no devices to high-spec machines, further complicated by the desire for hybrid and flexible learning environments where students would bring their own devices.



- **Complex and demanding software:** As a prominent STEM school, Purdue's Polytechnic and Engineering colleges relied heavily on GPU-intensive software, such as SolidWorks and NX, which were notoriously difficult to install, deploy, and license. These "painful to install" applications often presented deployment issues, even in controlled lab environments.
- **The need for IT centralization and scalability:** The organization needed solutions that could be both nimble for specific needs and scalable for the 15,000 students at the time, while being supported by a centralized group.
- **Shared campus environments:** With the Indianapolis split from IUPUI to separate Purdue and Indiana University locations, there was a need to still share physical computer labs, with a need to have a clear digital separation. For example, Purdue students needed to launch Purdue-licensed software without inadvertently using Indiana University's licenses, and vice versa.





Partnership for success

Purdue's main driver was not cost saving or IT efficiency, as is the case with many universities. However, that was a welcome added bonus. As a trusted partner to faculty and an enabler of technological greatness, the Engineering IT team set out to find the best solution out there to enable faculty to execute on their vision and deliver best in class STEM programs.

After thorough research, and discussions with other Big Ten universities, AppsAnywhere stood out as the solution that solved these challenges for other Engineering Colleges. A showcase from the University of Michigan and a successful bespoke pilot from AppsAnywhere not only helped Purdue solve its challenges but would also improve IT efficiency and drive effectiveness across other areas.

The pilot ran with the Computer Graphics Technology department, one of the most intensive in terms of IT requirements due to the applications used and high-performance demand. It was designed and evaluated according to the needs of faculty, instructors & TAs, students, and IT staff. The rollout across the Engineering school was timely, as it was one of the few universities to quickly pivot during COVID-19 and offer remote alternatives for hands-on learning and scientific studies. Being able to run applications on AppsAnywhere enabled a consistent application for all students, including those with lower performing computers, who weren't able to run high GPU applications locally.

The benefits had quickly materialized for all stakeholder groups:

Benefits for faculty

- **Enhanced teaching efficiency:** By streamlining software access, AppsAnywhere helped minimize technical barriers, allowing faculty to focus more on teaching and less on technology management during class time.
- **Consistent learning experience:** Faculty could ensure that students in different locations, including statewide outposts, used the same software versions and had a consistent experience, enabling synchronous teaching across the system.
- **Confidence in software access:** In shared lab environments, faculty gained confidence that students were accessing and using Purdue's licensed software.
- **True partnership with IT:** The approach was driven by faculty needs, empowering them to do their jobs effectively without IT getting in the way, fostering a true partnership. This user-centric approach resulted in positive feedback, with some professors actively requesting AppsAnywhere for their classes.





Benefits for students

- **Seamless and ubiquitous access, easy to use:** AppsAnywhere provides students with easy, secure, and seamless access to all necessary software tools from one central online platform, regardless of their location, device type (Windows, Android, Apple), or operating system.
- **Bring Your Own Device (BYOD) support:** Students can effectively use their personal devices, including Macs, to run Windows-only software without complex workarounds, promoting flexible learning environments.
- **Access to high-performance software:** Students with less powerful personal computers (e.g., without a discrete GPU or sufficient RAM) are automatically redirected to GPU-backed servers (such as those using Parallels), ensuring they have the necessary computational power for demanding applications.
- **Consistent user experience:** The platform provides a more consistent software experience, reducing common issues and enabling students to hit the ground running on the first day of class. Their AppsAnywhere onboarding is part of their course set-up and onboarding, so they come prepared from day one.
- **Adaptability during crises:** AppsAnywhere proved crucial during the COVID-19 pandemic, enabling Purdue to quickly pivot and facilitate remote learning by delivering custom lab simulations to students who could not attend in-person labs. Unlike many pandemic-implemented IT solutions, AppsAnywhere continues to adapt to meet Purdue's growing needs, now and in the future.

- **Improved student success:** By removing barriers to software access, AppsAnywhere helps address retention and completion challenges, ensuring students have the tools they need to succeed in their coursework.

Benefits for IT

- **Reduced support overhead:** The simplified software delivery process, once initial documentation and support channels were refined, significantly eased the burden on support staff, reducing troubleshooting tickets and providing a more consistent experience.
- **Centralized software management:** AppsAnywhere acts as a "single pane of glass" for all 303 applications currently in use, bringing together various delivery methods (cloud, app virtualization, server, native, web, VDI) and simplifying management for a centralized IT organization.
- **Efficient software packaging:** The platform offers automated app licensing templates for over a hundred common applications, including many of the heavyweight engineering ones (e.g., SolidWorks, NX, MATLAB), significantly reducing the manual effort required for software repackaging and license changes. Purdue's packagers can often reuse existing Config Manager packages, making minor final touches.
- **Granular access control:** AppsAnywhere allows IT to restrict software access based on geolocation or Active Directory groups, ensuring compliance with licensing agreements and managing access for specific departments or student groups.



- **Detailed usage analytics:** The platform provides comprehensive metrics and analytics on software usage, helping IT understand peak usage times and justify resource allocation.
- **VDI cost optimization:** Purdue IT plans to use AppsAnywhere to control VDI (Virtual Desktop Infrastructure) spending by offloading applications to local workstations whenever possible, reserving more intensive VDI resources only for those who truly need them.
- **Strong vendor support:** Purdue IT staff found AppsAnywhere's support, documentation, training academy, and user forums to be highly responsive and helpful, contributing to smoother implementation and ongoing management.

Engineering Program Expansion

This initial success meant AppsAnywhere were well positioned to support Purdue Engineering in a time of rapid growth and strategic transformation. The transition from IUPUI to separate Indiana University and Purdue locations, and the need to set up new STEM programs (matching the flagship quality of West Lafayette) in its new Indianapolis location over the summer of 2024 were key drivers for expanding AppsAnywhere to 3000 more students.

Now, students who are in a non-Purdue classroom can launch Purdue applications, using Purdue licenses and has around a quarter of its students in its Lafayette and Indianapolis locations accessing applications through AppsAnywhere. And, the feedback from Faculty is very positive, with one Faculty member who was asked how things were going with AppsAnywhere replied,

“Why are you asking about the usage of AppsAnywhere? You’re not planning to take it away, are you? You better not!” - Rob, Indianapolis.

The growing demand for science, technology, engineering, and IT courses has been well documented, even as enrollments seem to drop across other areas. Having a scalable solution that can easily expand with the number of students allows Purdue to be quick at creating more capacity in their courses, as demand grows. This is particularly important for institutions, not only from a financial sustainability perspective, but also as a key contributor to building today’s and tomorrow’s skills and capabilities.

Purdue's vision for the future

Purdue IT, the department that manages IT infrastructure for the university centrally, is now evaluating scaling the solution campus-wide. The vision is to make all back-end technologies similar and homogeneous across all campuses to further simplify IT operations and deliver a consistent digital experience. The success of AppsAnywhere at Purdue underscores the value of approaching technology solutions from the perspective of instructional needs rather than purely IT convenience, resulting in a seamless and appreciated service for the entire college community that can grow with their needs.

A platform loved by millions of students

What is unique about AppsAnywhere, is just how adaptable it is to different institutions' needs and environments. Used – and loved – by over 3 million students, in 300 institutions, across 22 countries, AppsAnywhere is the Netflix of software access and delivery. For students, it provides access to all their course applications in one location, and with a one-click launch.

Find out more at:
www.appsanywhere.com

✉ sales@appsanywhere.com

AppsAnywhere is a global software delivery provider that revolutionised how students and higher education faculty and staff access applications on campus computers or on personal devices. Since 2009, AppsAnywhere has been at the forefront of app management innovation, providing equitable, consistent and seamless digital experiences for more than 3 million students, in 300 institutions, across 22 countries.

For IT, it's a central dashboard that helps manage the entire software estate, deploy any application to any device, analyze usage, manage licensing and reduce administrative workload. As an education-only software provider, AppsAnywhere is committed to providing students with the software access they need to succeed.

Book a demo today!

