Deliver learning without limits — backed by digital resilience

Institutional trust is essential in higher education. Students expect their universities to provide high-quality academic and support services that are personalized and secure — all built on a streamlined digital infrastructure that can keep things running smoothly on the decentralized campus.

Unfortunately, complex hybrid environments and a lack of visibility across campus can make it harder to identify and fix issues and outages when they occur. These disruptions slow operational efficiency and make it difficult for students, staff, and researchers to access important digital services.

And with many universities lacking specialized IT Operations (ITOps) and engineering teams, recovery can be slow, which can upset end users and put the university's reputation at risk.

With everything from registration to financial aid dependent on digital processes, universities can use a comprehensive observability strategy to enhance visibility, quickly resolve issues, and gain better control of their data to build a more resilient institution.

44% of executives recently surveyed say downtime damages an organization's reputation.

Observability: the foundation of higher education's next chapter

Digital resilience is the ability of organizations to prevent, respond to, and quickly recover from events that have the potential to disrupt services. Building a robust observability practice is essential for enhancing digital resilience.

Resilience leaders experience 28% faster recovery from application- or infrastructure-related incidents, and 23% faster recovery from cybersecurity-related ones.

Observability helps ITOps and engineering teams quickly identify and resolve both known and emerging problems, leading to improved reliability and better experiences. This not only reduces the impact of unplanned downtime on student experience but also strengthens overall organizational resilience.

Universities with mature observability practices gain unified visibility across applications and infrastructure, ensuring full control over their data and associated costs. Because of this, they can quickly and accurately troubleshoot mission-critical systems, prioritize issues based on their impact, and prevent outages, all while streamlining workflows across teams.

As universities mature their observability practice, they can expect:

End-to-end unified visibility
With a unified view across on-premises and cloud environments, teams can see the full impact of issues on both student experiences and internal operations.

Faster issue resolution
Real-time detection and guided, root-cause analysis help teams quickly identify and fix problems, minimizing downtime and its associated costs.

Better control of data and costs
Organizations can collect data in any format and embrace OpenTelemetry (OTel) to customize controls and storage, so they only pay for what they need.

Deliver excellence and value with a more resilient institution

With Splunk, you can minimize costly downtime — and the impact to the student experience and the organization's reputation — to deliver learning without limits.

Keep mission-critical infrastructure up and running

Efficient issue detection and rapid, root-cause identification helps teams to quickly troubleshoot and resolve problems — or prevent them from happening.

At the University of Fribourg, for example, students sometimes waited hours to register for classes or access other important resources whenever the campus management application was down. The university's IT and development teams used Splunk Enterprise to get more visibility into its applications and Splunk Application Performance Monitoring (APM) to flag issues when applications stopped working. This resulted in four times faster issue resolution and improved app reliability.

Gain visibility into digital technology across service lines

Expectations of higher education continue to evolve. Visibility into the different departments and digital systems across the campus network helps colleges and universities better understand relationships between, and dependencies on, services to power data-driven decisions. And in turn those decisions can transform campus operations and deliver value.

Lingnan University in Hong Kong — which has just 16 people to monitor its complex IT infrastructure — uses Splunk to fully centralize, automate, and facilitate IT management to provide 100% infrastructure visibility. With comprehensive visibility, the team is empowered to increase operational efficiency, improve threat hunting, and ultimately provide a more stable, reliable, and secure computing experience for over 10,000 students and staff.

Other institutions are also turning data into doing. The University of Illinois uses Splunk to advance student success and online safety. The university athletics programs tapped Splunk to analyze biometric data and surveys from student athletes to better inform coaches and optimize athlete health and performance. The university team is also investigating ways to use Splunk to combine data from management system logs, online courses, wireless access, databases, and other sources to build models that identify which students may be facing challenges.

Correlate disparate data sets

By collecting, indexing, and analyzing data across silos, universities can get deeper insights, faster remediation, and real-time monitoring to support compliance and risk mitigation.

Data access and visibility are critical to Imperial College London, one of the world's top 10 universities. A longtime user of Splunk Enterprise, the university added a combination of Splunk Cloud Platform and Splunk Synthetic Monitoring to get visibility into its sprawling campus' hybrid IT estate. University teams are now able to monitor over 100-plus services coming from more than 60 different sources to provide more informed decision-making and a more secure and resilient student experience.

Similarly, the New Jersey Institute of Technology (NJIT) uses Splunk to seamlessly combine disparate streams of event, academic, and infrastructure data. By mining data from various facets of the student and campus experience, NJIT can bolster both physical and digital security across the campus. The university, which has seen a 28% jump in enrollment in recent years, is also able to monitor student and the organization's progression toward critical objectives — like expanding on-site attendance.

Advancing observability to build a foundation for the future

At higher education institutions, students require seamless digital processes for academic life.

As students come to expect always-on, advanced services and applications, and higher performance, achieving end-to-end observability will be essential — and that's Splunk's expertise. Splunk helps higher education organizations to:

> Building a leading observability practice means being obsessed with delivering incredible digital experiences to your customers,and embedding that mindset into every decision you make.
>
> **Patrick Lin**,
> SVP and GM, Observability, Splunk

Understand the customer journey
Stitch end-to-end views together for a deeper understanding of the journey for students, staff, and faculty.

Improve service performance
Equip your institution to get ahead of disruptions by identifying issues before they impact students and staff.

Enhance user-facing services
Test applications with confidence and deploy updates without interrupting the student, staff, and faculty experience.

Build trust
Monitor student-facing applications to resolve incidents quickly and keep them happy.

Stay ahead of the curve
Innovate quickly, and safely reimagine how to optimize and scale educational platforms.

Splunk empowers the entire observability journey

Digital resilience is a journey. But the path is far from linear — and it can vary greatly. So Splunk has created a model to help ITOps and engineering teams expand into new and complementary use cases across observability.

Drawing from industry standards and adoption patterns for our customers, we've identified the most common steps ITOps and engineering teams typically take as they use observability to improve their digital resilience.

Building a leading observability practice

Foundational Visibility

See across environments

Troubleshoot mission-critical apps and infrastructure by combining metrics with logs.

Guided Insights

Detect threats and issues with context

Prioritize issues based on institutional impact and reduce alert noise to focus on what matters.

Proactive Response

Get ahead of issues

Prevent outages and accelerate mean time to resolve (MTTR) with guided root-cause analysis.

Unified Workflows

Collaborate seamlessly

Standardize observability practices across teams to improve productivity, with shared data, context, and workflows.

Accelerated by Splunk AI

Forging ahead on the observability journey with Splunk

As expectations for higher education evolve, Splunk Observability, which is now supercharged by Splunk AppDynamics, provides complete business visibility across the entire campus to deliver seamless digital processes for every aspect of academic life.

By improving visibility into the data and systems that drive the student experience and assist in making more informed decisions, higher education institutions can build a more resilient institution and deliver highly available and secure services.

Organizations with leading observability practices are 2.8x faster at finding application issues than beginning organizations.

Get additional insights into how other universities are building digital resilience>

Learn more about observability >