MODERNIZE CAMPUS I.T. WITH OPEN SOURCE

Higher education organizations have diverse IT needs. Researchers require high-performance computing (HPC) and scalable storage for big data. Students want convenient access to services—from maps to course registration—through mobile applications and devices. Faculty and administrators want the freedom to deploy or retire applications and resources as needed. In addition, computer science departments seek to offer hands-on instruction and certifications in modern application development and management to improve rankings. Influencing all of these needs is the focus by campus leaders on controlling costs.

Achieve all of these goals with one investment: supported, subscription-based open source solutions from Red Hat. Provide IT services to researchers, students, faculty, and administrators faster and at lower cost than inflexible proprietary solutions. Red Hat product subscriptions include enterprise-grade security and support to protect critical, sensitive systems and data.

IMPROVE I.T. INNOVATION AND COSTS

SPEED RESEARCH TO STAY COMPETITIVE

University researchers face stiff competition for grants from the National Institutes of Health (NIH), the National Science Foundation (NSF), and other organizations. To win these grants, researchers need HPC capabilities and scalable storage for large volumes of research data and files. However, provisioning individual HPC servers for each research team can take weeks, delaying projects and increasing costs by restricting access to spare resources.

Instead, campus IT can speed research by using open source technology to build an on-premise private cloud to securely provide resources via Infrastructure-as-a-Service (IaaS) and Platform-as-a-Service (PaaS). Individual researchers can provision required compute, storage, and networking resources through a self-service web portal. As a result, campuses can complete and publish research faster to stay competitive.

Success story: Cornell’s Institute for Biotechnologies and Life Science Technologies needed a robust storage platform for research on DNA sequencing. The university used open source Red Hat® software to build a platform that takes advantage of existing storage hardware to support this research.

Watch the video at: redhat.com/en/about/videos/cornell-relies-red-hat

INCREASE STUDENT ENGAGEMENT

Modern students often prefer to interact with their college or university through mobile devices and apps. With open source development tools, campuses can quickly build reusable, secure mobile apps for services that improve the campus experience—such as activity and class schedules, student and faculty directories, maps, grades, ticket purchasing, and public transportation schedules. In addition, student organizations can use a self-service portal to create and maintain websites without development experience.
ABOUT RED HAT

Red Hat is the world’s leading provider of open source software solutions, using a community-powered approach to provide reliable and high-performing cloud, Linux, middleware, storage, and virtualization technologies. Red Hat also offers award-winning support, training, and consulting services. As a connective hub in a global network of enterprises, partners, and open source communities, Red Hat helps create relevant, innovative technologies that liberate resources for growth and prepare customers for the future of IT.

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SUCCESS STORY

The University of North Carolina at Chapel Hill built an on-demand cloud for web development. Faculty, students, and staff can use this Paas to develop web applications with a choice of programming languages, databases, and tools. In addition, standardizing on one platform reduced help desk calls.


PREPARE STUDENTS FOR CAREER SUCCESS

Top candidates for engineering and computer science programs consider a school’s IT infrastructure and tools when deciding where to attend. With open source technology, campuses can offer students hands-on lab experience with modern application development tools at lower cost using virtual desktops. Through Red Hat Academy, a higher education offering, campuses can take advantage of ready-made hands-on instruction, curriculum, labs, performance-based testing, and instructor support.

Success story: East Carolina University established a solid, rigorous Linux® curriculum with Red Hat Academy. Students receive certifications that boost their resumes and help the university recruit top scholars.


In addition, students who learn advanced development skills are more attractive to employers.

Big data analytics can offer predictions about student success—such as four-year graduation rates or success rates for a particular major or course. Identify and weigh factors—such as grades, test scores, previous coursework, demographics, and use of tutoring resources—to create these predictions.

Open source data virtualization solutions create the robust foundation needed to examine these student success factors. Consolidate structured and unstructured data from multiple locations into a single, unified view for enhanced insight, and run analytics in any on-premise or cloud environment.

CENTRALIZE I.T. SERVICES

By individually managing IT resources for various departments, projects must often wait until IT can provision the necessary servers, storage, and networking and upgrade systems. Open source technology can help campus IT simplify delivering IaaS and PaaS via a private cloud. This cloud can securely store data—including databases, documents, media, and Internet of Things (IoT) data. Resource costs can be managed by billing departments based on actual use.

Customer success: Massachusetts Open Cloud (MOC), a nonprofit group of universities, government organizations, and businesses, needed reliable, cost-effective storage for big data analytics. Red Hat helped MOC deploy cost-effective, reliable open source storage on industry-standard hardware.

Read the case study at: redhat.com/en/resources/massachusetts-open-cloud-case-study

OPEN SOURCE FROM RED HAT

Red Hat’s products and services—from Linux platforms to middleware and more—can help higher education institutions cost-effectively modernize IT. These solutions, based on community innovation, offer the security and performance required for research and student services. Working with Red Hat also offers the benefit of our more than 15 years of experience working with higher education IT.

Learn more about how Red Hat helps higher education build and manage modern IT environments at redhat.com/education