

CLOUD COMPUTING FROM MICROSOFT

Empowering education through choice

MICROSOFT CLOUD OFFERINGS AT A GLANCE:

Infrastructure as a Service (IaaS)

With IaaS, organizations benefit from on-demand computing and storage to host, scale, and manage applications and services. Using Microsoft data centers means scaling with ease and speed to meet the infrastructure needs of an entire district, university, or school.

Platform as a Service (PaaS)

The Windows Azure platform consists of an operating system, a fully relational database, and consumable Web-based services. The platform offers a familiar development experience, on-demand scalability, and reduced time-to-market for your applications.

Software as a Service (SaaS)

Microsoft hosts online services that provide your faculty, staff, and students with a consistent experience across multiple devices. These services and applications include Microsoft Live@edu, Microsoft Business Productivity Online Suite (BPOS), Microsoft Exchange Hosted Services, Microsoft Dynamics CRM Online, and Microsoft Office Web Apps.

Live@edu is a no-charge SaaS offering for K-12 and higher education institutions that provides students, teachers, faculty, staff, and alumni long-term, primary e-mail addresses and other applications they can use to collaborate and communicate online. Microsoft regularly updates and adds to Live@edu services, so your institution can continually expand the set of services you offer students and alumni.

Every education institution has distinct goals, standards and regulations, budget pressures, security concerns, and technical legacies. No single approach addresses all technology challenges, and solutions can rarely take a one-size-fits-all approach.

The movement toward cloud computing—technologies that enable organizations to access Internet-based information, applications, and services—brings increased choice, flexibility, and capabilities to education IT departments. Cloud computing complements traditional IT models in which software and data are hosted on desktop computers and servers.

This evolution gives education institutions the opportunity to balance the need to deliver cost-effective services to students, teachers, faculty, and staff with important institutional demands, including important considerations such as data security, authentication, and system management.

WHY CLOUD COMPUTING?

With cloud computing, your institution can get powerful software and computing resources when and where you need them. It gives system managers more flexibility to manage scale and cost in ways that are largely invisible to users and that also account for risk management, peak demand, and long-term planning needs. Education institutions can respond to their district's, college's, or university's needs with more agility, and help ensure that students, teachers, faculty, parents, and staff have on-demand access to essential information, using any device from anywhere. With cloud computing, you can:

LOWER COSTS

Cloud computing gives academic organizations choices about how to manage costs according to their preferences—either as a capital expenditure or an operational expense. Cloud services that are developed hand in hand with on-premise server counterparts also deliver much-needed flexibility to educational institutions—enabling lower costs to develop, scale, operate, and migrate systems that are distributed between the cloud and the data center.

REDUCE CARBON FOOTPRINT

Cloud services can help lower operating costs and environmental impact by pooling computing resources across organizational boundaries, and enable the assigning and reassigning of resources dynamically according to demand. Microsoft data centers are designed to optimize resources and minimize energy consumption.

SIMPLIFY IT MANAGEMENT

Cloud technology can help to manage spikes in user demand, and decrease the cost and burden of anticipating and building excess IT infrastructure by enabling on-demand scale, less ongoing maintenance, and shorter deployment time. Systems can be scaled up or down according to actual needs. In today's connected world, students, teachers, faculty, and staff members need to move seamlessly from the browser to the computer to a mobile device for flexible, yet unified, experiences.

www.microsoft.com/educloud

Microsoft

Education all in.

Microsoft hosted services

As one of the largest hosted services providers in North America, Microsoft offers a solid track record with its online solutions:

- Windows Live Hotmail, one of the most popular messaging services worldwide, services 400 million accounts.
- Microsoft Office Live Meeting hosts 5 billion conference minutes per year.
- Exchange Hosted Services manages 2.4 million e-mail messages each day.
- Windows Live ID processes 1 billion authentications each day.
- Bing serves up to 2 billion search queries a month.

Microsoft serving education institutions

Thousands of institutions in more than 100 countries are providing Live@edu to millions of students worldwide. These institutions include the University System of Ohio, United States; the University of Queensland, Australia; Alexandria University, Egypt; the Colorado Community College System, United States; and the Ministry of Education of São Paulo, Brazil.

WHY MICROSOFT?

The Microsoft software-plus-services strategy is about the power of choice—a hybrid model of resources, both on premise and off, that enables you to move as much or as little as you want to the cloud. It's not an all-or-nothing approach; instead, it enables you to flow workloads across your own—and outside—infrastructures. So you can complement your existing IT assets with Web-based services. By having applications available across the Internet, you can help to ensure the experience is consistent across the computer, phone, and browser.

Microsoft invests heavily—more than U.S.\$9 billion is targeted for 2010—in research and development to help drive the technology further. With updates nearly every 90 days, education institutions can quickly benefit from the latest technologies. They can also use hosted services to try new technologies without investing significant financial resources before deciding to bring them in-house.

FINANCIAL FLEXIBILITY

Microsoft cloud services for education offers great programs like Microsoft Live@edu at no cost to education accounts. Additionally, all our hosted services offer greater financial flexibility in how you choose to fund your IT resources—either as a capital expenditure or an operational expense. Your needs determine what to keep on premise and what to push to the cloud. When you use resources in the cloud, it's like turning on a light switch: You don't necessarily need to own the generator to get the service you need. When you reduce the need for on-premise resources, you reduce the maintenance and operational overhead, including hardware and facility expenses. At the same time, you can simplify and accelerate application updates and deployment.

ENTERPRISE-CLASS SECURITY, RELIABILITY, AND COMPLIANCE

Recognizing that data in many forms is one of education's most prized assets—from sensitive student information to critical research data at leading institutions—Microsoft has invested more than \$2 billion in new data centers around the world. These centers meet or exceed U.S. federal government and international security body standards. With a global reach, commitment to security and privacy, and a 99.9 percent uptime service-level agreement with round-the-clock support, education institutions have an enterprise-proven technology infrastructure at their disposal that has been in development for more than 20 years, 15 of which have offered services in the cloud.

FAMILIAR, AGILE, AND EXPERIENCED

Microsoft provides an elastic infrastructure that enables your institution to address needs as they arise. You have the flexibility to move services in—and out—of the cloud. That means teachers, students, faculty, and staff can stay connected and stay focused on delivering a quality education, with a familiar experience, regardless of the device or location. Your developers can focus on coding, with confidence that their work can be deployed efficiently because the infrastructure is always available, interoperable, and open. The result is a more flexible, responsive education institution.

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