Virtual Desktops: Wherever You Are, So Are Your Applications

On a campus with 5000 desktops or laptops, every operating system patch and software upgrade has to be repeated 4999 times. Software licensing management is complex. And in order to use specialized software for research or science labs, for instance, you have to walk across campus to a computing center.

Virtual Desktops: Move the Brains Off the Desktop

Now there is a more efficient and less costly alternative, called virtual desktops. The difference is that people's applications and files are stored on a secure computer in the campus data center instead of on their computers. Students, faculty, and staff use an inexpensive thin-client device to log onto the network and access their applications. They store their files on the central computer, on a USB drive, or both, depending on how the administrator sets it up.

Also used in business and government, virtual desktops are especially appealing in higher education. Some of the reasons follow:

- **Lower IT overhead:** Traditionally, campus IT teams have had to constantly upgrade application software and apply operating system patches to protect desktops and laptops from newly discovered security vulnerabilities. With a virtual desktop infrastructure, the IT team installs new software and patches just once, on the host computer. Software license management is also simpler.

- **Lower computer costs:** Assume a college keeps PCs about five years. If PCs cost $500 and the college has 5000 users, costs work out to about $500,000 annually. Thin clients cost far less, and last much longer because they have fewer parts.

- **Simplified information security:** Every desktop is a potential security vulnerability, as when students unwittingly visit malicious websites that deposit malware capable of taking down campus networks. With virtual desktops, in contrast, the administrator can set it up so that any application changes that happen while one user is logged on are wiped clean when the user logs off.

- **Support for mobile users:** Faculty, administrators, and students can log in to use their personal desktops from any thin client on campus. A faculty or student researcher, for example, might use a thin client to work from the office in the morning, update the information from a mobile device in the field, and then generate reports using a thin client at home in the afternoon.

- **Simplified management of science labs:** Students can use specialized scientific software with limited licensing during the lab, and then return it to the shared pool for the next user. If one student changes a setting, the next students to use that thin client are not affected because they get a standardized copy of the software when they log on.

Seattle University Regains Control of Desktop Applications

Seattle University, located in Washington State, illustrates the value of a virtual desktop infrastructure. With 7751 undergraduate and graduate students, the campus has more than 1500 desktop computers and 20 computer labs. Constant software upgrades were costly in terms of hardware, software, and labor.

Seattle University simplified the campus computing environment by adopting a virtual desktop infrastructure, based on the Cisco Unified Computing System™ (UCS) and VMware View software. Students can log on to any computer on campus to use their applications, and save their files either on the shared drive or their own USB drive.

Students especially like being able to access computer lab software from their dorms. And by making the computer lab software available from anywhere, the campus has avoided the expense of building more computer labs.

