Money-Saving Computer Clusters Advance University Research Projects

(NAPSA)—New medicines to combat cancer, Alzheimer's, AIDS and other diseases may be coming to market faster, experts say, thanks to new, money-saving advances in computer research technology at American universities.

What used to cost colleges tens of millions of dollars—high-tech research computers for use in areas ranging from medicine to engineering—can now be purchased at a fraction of the cost, thanks to a growing trend at our universities to use inexpensive network servers for research. These servers, tied together in what's called a "cluster," act as a single, high-powered computer, performing millions of complex calculations per second. They can do research that was previously impossible—or required the time and expense of a mainframe computer.

Case in point: The University at Buffalo, the State University of New York, which has installed one of the largest clusters of Linux servers ever at a U.S. educational institution. The high-performance computing cluster is comprised of more than 2,000 Dell™ PowerEdge™ servers and a Dell/EMC storage

A "cluster" of network servers acts as a single high-powered computer.

area network and will be used for human genome research, bioinformatics, protein structure prediction and large-scale computer simulations. The cluster will also include more than 16 terabytes of storage using a Dell/EMC storage area network, or the equivalent of more than 25,000 compact disks.

Dr. Jeffrey Skolnick, director of the University's Buffalo Center of Excellence in Bioinformatics, and his team, will use the cluster to conduct a variety of research that could eventually help speed drugs to market to combat cancer, Alzheimer's, AIDS and a variety

of other diseases. Other universities are using cluster technology to study what happens to buildings in an earthquake and what happens to airplane wings over time, in an attempt to find ways to make these structures stronger and safer.

"Deploying server clusters enables us to process the massive amount of data that is critical when doing this type of research," explains Dr. Skolnick.

"We are seeing a continuing trend in higher education toward affordable industry standard server clusters. These systems are now allowing universities to conduct research that was once the province of just a few selected locations around the world," said Bill Rodrigues, Dell's vice president and general manager for education and health care. "I have no doubt that the research Dr. Skolnick and his team will accomplish can have a lasting, positive effect on society."

To learn more about computer clusters, information technology and Dell products and services, you can visit the Web site at www.dell.com.