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## **'ZEKE' SUPERCOMPUTER PUTS UL LAFAYETTE ON THE LONI MAP**

LAFAYETTE - Zeke is plugged in at the University of Louisiana at Lafayette and ready to deliver economic benefits to the university and the state.

Zeke, UL Lafayette's computing node on the Louisiana Optical Network Initiative, was launched today. The supercomputer, which is housed in Abdalla Hall, is named after former Mathematics Department head and computer science pioneer Dr. Z. L. Loflin, who passed away in 1982.

The IBM P5-575 has enormous computing capabilities. In the time it takes a bullet to travel one foot, Zeke can complete 330 million calculations; in the time it takes to blink an eye, the supercomputer can complete two billion calculations. "The installation of this supercomputer and other supercomputers connected to the LONI network sends a clear message that UL Lafayette and Louisiana are serious about research that can move this state forward and bring about more economic opportunities," said Dr. Ray Authement, UL Lafayette president. "With Governor Blanco's support of the LONI network, we're able to place ourselves among the top universities in the country in terms of research and economic development using supercomputing, visualization, and high-speed networks."

LONI is a fiber-optics network interconnecting high-performance computing resources at major Louisiana research universities, initially including UL Lafayette, LSU, Louisiana Tech, Southern University, the University of New Orleans, and Tulane University. Governor Kathleen Babineaux Blanco has pledged \$40 million over ten years to support and maintain LONI. Its value to Louisiana is enhanced by its connection to the National LambdaRail, a grid-computing infrastructure expected to have the same effect on our nation's technological development as the interstate highway system has had on interstate commerce. At UL Lafayette, the Center for Business and Information Technologies (CBIT), located in Abdalla Hall, is working on various projects with industry partners with applications in electronic health informatics, enterprise computing, and homeland security, that will leverage the supercomputing and bandwidth capabilities of LONI.

The center has received funding from the National Science Foundation to establish the Louisiana Technology Incubator for Entrepreneurial Success, a technology incubator with a mission to assist Louisiana businesses understand and exploit LONI and Louisiana Immersive Technologies Enterprise resources to improve their bottom line. In addition to these economic development initiatives, CBIT is working with such state agencies as the Department of Health and Hospitals and the University of Louisiana System on applications that could potentially leverage LONI for computationally intensive data mining and data warehousing applications.

In UL Lafayette's Center for Advanced Computer Studies, faculty members and students will be able to conduct research work in the design and testing of grid computing software, multimedia applications, information technology solutions, robotics and autonomous vehicles and computers and microelectronics systems with the help of LONI. The high-speed network will allow CACS researchers to exchange data sets from around the world. The computing power, especially when enhanced by the grid computing through the network, will enable faculty members and students to tackle problems of much larger scales.

Their research will result in better reliability and scalability of grid computing systems; delivery of valuable biomedical information and knowledge services to physicians, biomedical researchers, and healthcare practitioners; new computing systems, microelectronics circuits, and sensor networks; intelligent traffic systems; and improved ability in prediction of weather, sediment transport, and flooding.

“On this historic day for technological advancement, we would be remiss not to acknowledge President Authement's visionary leadership. Zeke is the culmination of over three decades of research and economic development prioritization at this university,” said University of Louisiana System President Sally Clausen. “Harnessing faculty brainpower through LONI will enable Louisiana to compete in the global economy.” LONI and the LambdaRail have far-reaching implications for Louisiana's research competitiveness and long-term economic development potential. In fact, many Louisiana universities are already engaged in potentially-valuable research that will be exponentially enhanced by LONI and the LambdaRail.

Today's event signals the final stretch of LONI implementation in Louisiana,” said Louisiana Commissioner of Higher Education Joseph Savoie. “The network is already delivering significant benefits for Louisiana's research institutions, but next year LONI will begin to show its true potential for our state, not only for our universities, but also for our economic future.” “This is a red-letter day for the Lafayette region, and for our entire state,” said Governor Kathleen Babineaux Blanco. “As LONI moves Louisiana to the forefront of national research capability, it also enhances the environment for the kind of technology-based economic development from which our state can most benefit. A diversified economy will keep our state on the grow, and LONI paves the high-tech highway to get us there.”

At UL Lafayette, Zeke is housed at the Center for Business and Information Technologies in Abdalla Hall, across the road from the Louisiana Immersive Technologies Enterprise – one of the world's leading 3D visualization and supercomputing resource centers. Its leading-edge research complex features a comprehensive set of advanced visualization systems including a sophisticated interactive 3D theatre and one of the world's first six-sided digital 3D total immersive spaces. UL Lafayette joins other initial participants Tulane, LSU, Louisiana Tech and the University of New Orleans in plugging in its LONI supercomputer. Southern University will come online early in 2007.

