## UMS to stay competitive via Internet 2

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ELLSWORTH, Maine - The University of Maine System has hired a Maine company to help provide the state's universities and The Jackson Laboratory with the broadband Internet capacity they say they need to stay competitive with research and education institutions worldwide.

Oxford Networks of Lewiston, which currently offers broadband Internet access to customers from Bangor to Portsmouth, N.H., will provide that connectivity by extending its network infrastructure 140 miles south to the Internet 2 network in Boston, officials announced this week in a statement. Internet 2 is an advanced, high-capacity nationwide broadband network that is dedicated exclusively for research and education purposes.

The value of the 20-year contract with Oxford Networks is \$1.95 million for the dedicated broadband network capacity and \$2,750 per month for maintenance, repair and other expenses, Tompkins said in an e-mail.

Money for the project will come from a \$4.9 million broadband network investment package for Maine research and education institutions that was funded last year with \$3 million from the Legislature and \$1.9 million from Jackson Lab, a nonprofit Bar Harbor-based lab known worldwide for its mouse genetics and disease research.

Mike Tompkins, Oxford Networks' vice president of operations, said Monday that the company expects to provide UMS and Jackson Lab with fiber-optic connections of 10 gigabytes per second by the end of February 2009. Over time, specialized equipment could increase those connections to 320 gigabytes per second, he said.

"That's very substantial," Tompkins said of the Internet speed or capacity.

A speed of one gigabyte per second is about 1,000 times faster than a speed of one megabyte per second, which is the approximate speed many digital subscriber line users have in their homes. At the speed that Oxford Networks has promised initially to UMS and Jackson Lab, users would be able to e-mail, at a minimum, thousands of photographs on the Internet in a single second.

For the past several years UMS and Jackson Lab have been trying to acquire the kind of broadband Internet capacity available to other institutions out-of-state. Because Maine has a relatively small population and because there aren't substantial communications networks running through Maine that connect large urban population centers to one another, broadband capacity has been more difficult and expensive to acquire in Maine than elsewhere.

In the statement, UMS Chancellor Richard Pattenaude indicated the expanded Internet access will help the state's ability to attract researchers and federal research funding.

"This fiber-optic based research and education network is a powerful tool that solidifies Maine's appeal and potential as a high-tech center of research, development and commercialization of products, technologies and ideas," Pattenaude said.

The agreement also calls for Oxford Networks to provide Bowdoin and Bates colleges, located respectively in Brunswick and Lewiston, with broadband capacity access to Internet 2, according to the statement. Other nonprofit research entities such as Mount Desert Island Biological Laboratory in Bar Harbor also will have access to the network.

Scott McNeil, Jackson Lab's chief information officer, indicated Tuesday in a separate statement that the deal with Oxford Networks will finally give the lab what it has been looking for.

"The Jackson Laboratory is extremely excited about this, the final leg of our high speed connectivity to the Internet and Internet 2," McNeil said. "The culmination of this portion of the route is key to our success and that of the University of Maine System."

In the initial, \$1.6 million phase of the project, Mid-Maine Communications extended fiber-optic cables between Bar Harbor and Orono, according to Peggy Markson, communications coordinator with UMS. Fiber-optic cable, the most effective medium for transmitting large amounts of electronic data, are used by communications companies for the primary trunks of their networks.

The arrangement with Oxford Networks will provide the nonprofit partners with the fiber-optic capacity they need between Portland and Boston, Markson said. The remaining \$1.3 million

will be spent on networking equipment that will keep the fiber-optic cables working and will add to their transmission capacity, she said.

btrotter@bangordailynews.net

460-6318

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