



Wisconsin can learn from Ohio's data determination

Better network needed to attract companies, jobs

April 21, 2012

Ohio's efforts to build a "knowledge economy" have ranged from creating more pools of venture capital to streamlining the transfer of academic research from the lab to the marketplace.

However, the Buckeye State's most ambitious economic growth strategy involves building a high-speed electronic data network that can serve researchers, businesses and communities alike.

It's an undertaking that business leaders, researchers and policy-makers in Wisconsin would be wise to follow - especially if they want the Badger State to compete for companies and jobs.

Ohio Gov. John Kasich announced plans in February to invest about \$10 million to upgrade his state's "data highway," the network that transmits data through the Internet and allows for broadband and wireless connections.

The plan calls for upgrading existing network speeds from roughly 10 gigabits per second to 100 gigabits per second, which is pretty much the gold standard when it comes to data transmission speeds.

Set for warp speed

How fast is 100 gigabits?

Imagine an electronic "pipe" large enough to transmit 8.5 million medical records in one minute. One hundred gigabits is 50,000 times faster than current smartphone data speeds and large enough for all of Ohio's 1.8 million K-12 students to download an electronic textbook simultaneously in about two minutes.

Your first thought might be, "Well, who needs to get data that quickly? My laptop works just fine."

The answer to that question already includes hospitals, research institutions and businesses that rely on electronic data, a commodity that defines the modern global economy. In the future, it could include just about everyone else.

"This game-changing 'data highway' upgrade gives Ohio small and midsize companies greater access to, and use of, modeling and simulation that can improve their products and thus help their businesses grow and to compete globally," said Tom Lange, who runs a significant chunk of Procter & Gamble's research and development.

Ohio's business, R&D, and economic development leaders appear to have rallied behind the plan because

they think it will enhance that state's ability to attract and retain companies that deal in medical research, manufacturing, engineering and other sectors, all while better connecting the state to Internet2, a nationwide advanced data network.

Sizing up our tech scene

Unfortunately, that kind of consensus has yet to emerge in Wisconsin.

In the Milwaukee area, the push for a more vibrant "cyberstructure" is being led by the nonprofit Milwaukee Institute and its chairman, investor John Byrnes of Mason Wells, a leading private equity firm.

Byrnes believes Milwaukee's economic development groups must face up to the need for regional computing and data transfer capacity, which he thinks should be doubled or tripled in order to leverage existing R&D assets and stimulate economic growth.

The debate is not confined to southeast Wisconsin. Similar needs for high-capacity networks exist throughout the state, and there are tensions between some telecommunications providers and other networks that exist primarily to connect academic and private researchers with Internet2 and other national pipelines.

The policy challenge appears to revolve around building data networks that are large enough to serve Wisconsin's needs - without competing with private carriers who don't want to see their largest data customers "cherry-picked" by networks that have public funding.

Sharing info infrastructure

The solution may be shared high-end networks that can be used by large and small data customers alike.

"It's like the interstate highway system or the nation's electricity grid," said Bruce Maas, chief information officer for the University of Wisconsin-Madison. "We should not be duplicating services. We think there can be shared infrastructure for the really big 'pipes' . . . and we do not see ourselves in the commodity Internet business."

At stake is economic growth in some of Wisconsin's emerging business sectors.

From genomics to medical imaging, and from biotechnology to nanotechnology, almost all of R&D today is inexorably linked to high-end computing and network connections. In Milwaukee, where leading research institutions are striving to work together on major research goals, those rich data connections are all the more important.

Much like Wisconsin, Ohio is a manufacturing and agricultural state. However, its leaders recognize it must be an "information state," as well, to compete with the East and West coasts - let alone the world.

It's an initiative worth tracking.

Tom Still is president of the Wisconsin Technology Council and the Wisconsin Innovation Network. He can be reached at <u>tstill@wisconsintechnologycouncil.com</u>.

Check the box to include the list of links referenced in the article.