Tech historians rebuild NABU network

If you've never heard of the NABU Network, you're probably not alone. Nonetheless, it was once considered to be a significant achievement in Canadian technology, and now a group of IT historians are bringing NABU back to life.

"It's an educational mission to show young people... that it is possible to do this in Canada," says Zbigniew Stachniak, a professor in York University's computer science and engineering department in Toronto.

NABU (which stands for Natural Access to Bi-directional Utilities) launched in 1983 on the Ottawa Cablevision TV network. The brainchild of serial IT entrepreneur John Kelly (Why Interactive, NexInnovations, SHL System House, et cetera ad nauseum), it was the first commercial enterprise to offer high-speed (6.5 Mbps) access to information, software, and digital entertainment directly to the homes of PC users, according to the [NABU Network Reconstruction Project at the York](#) University Computer Museum.

NABU subscribers could rent a NABU PC and a dedicated network adaptor or buy them for about $950 – around the same price as a Commodore PC back then – using an ordinary TV as a monitor. Once connected to the service at a cost of $8 to $10 per month, a user could choose from various entertainment and education services and programs.

It was a serious step up on the network technology ladder, Stachniak says. An existing information network, Teletext, was comparatively slow, because it relied on the telephone network, which certainly didn't provide the throughput that customers expect from their DSL modems today. The Canada Science and Technology Museum says NABU "was the Internet 10 years ahead of its time."

It was a hit from the beginning. Thousands of people in the Ottawa area subscribed to the service, Stachniak says. There were NABU listings in local newspapers detailing the programs and services available. In conversations with former NABU subscribers, Stachniak discovered that the service had a significant cultural impact. For many, NABU was where they learned to use PCs.

But the service didn't flourish. Cable companies seemed reluctant to enter the interactive arena, so NABU never achieved the revenue it expected to get from the cable industry. Then NABU's financial backers decided to stop funding the service, which was expensive to run; program development wasn't cheap, Stachniak explains. NABU appealed to the government for finances, banking on the network's early success as an educational tool – there were already a number of NABU classrooms in the Ottawa area. But the government didn't pony up.

In the end, the company folded, circa 1985. And with that, Canadians largely forgot about NABU.

Enter Stachniak and his team at York U. Although a specialist in artificial intelligence, Stachniak is fascinated by technology history. He started researching NABU out of curiosity and, deciding that this was a Canadian innovation worth exploring, he decided to learn more about it.

But that was easier said than done. By the 2000s, most of the documentation from the NABU project had been lost or destroyed. Technical information was difficult to find, making the reconstruction process all the more challenging. Software for the system? Forget it. "It was a total disaster," Stachniak says. "Nothing was left."

Nonetheless, Stachniak and the York U tech historians kept digging, and eventually came up with NABU computers that former subscribers still had stashed in basements. They also unearthed some owners' manuals, which actually provided a number of clues about the network architecture.

After a year of scrounging, the team had material enough to attempt a network build. They started that part of the project in 2005, and only finished in 2008, unveiling the NABU reconstruction this past April at York.

Stachniak says the historians managed to track down an old NABU game, sourcing it from a Japanese company, ASCII Entertainment, which had bought "HeliTank" for its own network. When the York crew put the title on the network, it worked.

And a few weeks ago, an even better find: after corresponding with former NABU employee Bob McNally, the historians got their hands on genuine NABU software. McNally's friend Leo Binkowski helped port the old floppies from McNally's place over to the York U team, and now Binkowski has joined the restoration project himself, Stachniak says.

He figures these sorts of endeavours are important, because they help people in the IT industry remember that once upon a time, technology development had as much to do with network architecture and PC design as it did software and the more abstract aspects of the OSI layer that most people work with these days.

Stachniak and his reconstruction project collaborator Bill Kindree, as well as NABU's creator Kelly will present a lecture about the network, along with a display of the hardware and trade literature associated with the technology, at the Science and Technology Museum in Ottawa on Nov. 21.

For more about the NABU reconstruction project, visit www.cse.yorku.ca/museum.