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Wireless Grids Wants to Hook You Up

The startup may have invented the holy grail of connectivity: a program that lets users link all of their content and devices—and share them with friends

by Jennifer L. Schenker

You might think kids in a college dorm could perform any digital feat imaginable, but even for the young and digitally adept there are limits. A student can't, for example, sit on a sofa in the common room, whip out an Apple (AAPL) iPhone, use it to browse a stash of photos on the computer in another room, and then drag and drop them over to a big-screen TV so everyone can look at them together.

The obstacle is this: Electronic gizmos like computers, mobile phones, and TVs weren't designed to share content with each other, and the networks they run on don't speak a common language.

Universal Network

A Syracuse (N.Y.) startup called Wireless Grids intends to change that with software designed to break down the walls between different networks and devices. The technology behind Wireless Grids was developed with the aid of more than $2 million in U.S. government grant money from the National Science Foundation and about $500,000 in funding and research support from U.S. networking gearmakers Cisco Systems (CSCO) and Novell (NOVL), Britain's BT (BT), Japan's Hitachi (HIT), and Finland's Nokia (NOK). U.S. chipmaker Intel (INTC) is considering collaborating with Wireless Grids, while Telecom New Zealand (NZT) is evaluating the technology for use in homes.

The concept is that everyone should easily be able to access all of their own content, whether it is stored on a phone, a computer, or a personal video recorder. And users should be able to swap content among devices regardless of where those devices are located in the world. Even more radically, Wireless Grids says users should have the power to specify individuals with whom they'd like to share—and to decide who gets access to what. For this purpose, Wireless Grids says it has built in security measures that are all but hacker-proof.

Any device that can link to the Internet can download Wireless Grids' software, which will work across all types of networks or computer operating systems. Once the software is loaded, a menu pops up asking which things you'd like to share. The initial

version allows users to share software files as well as computers, speakers, printers, cameras, and screens. Users click on an icon and select which files and devices they want to make available. The other parties can be located anywhere, as long as their devices also have the software loaded.

Beginning in January, 40 students in a dorm at New York's Syracuse University will test-drive the technology. As devices are loaded with the software and come online, the content tagged for sharing will become available in a kind of virtual repository that designated members can access inside or outside of the dorm. In theory, at least, copyright won't be an issue because the available files won't actually move from one device to another.

The first customer for this software is Syracuse itself, which helped develop the technology along with five other universities including MIT. If all goes well, Wireless Grids' software will be embedded in next-generation wireless devices by late next year. It will also be introduced into homes via new broadband offerings from phone companies, says Wireless Grids CEO Lee McKnight, a Syracuse University professor who worked with Internet pioneer Dave Clark on Internet economics and security issues in the early days of the Web.

Precursors and Rivals

Wireless Grids is by no means the first company to attempt to provide the tech glue necessary to connect entertainment and communication devices. In 1990, an Apple spin-off called General Magic tried to bring together computer, communications, and consumer electronics companies around a new kind of handheld device that would share information and computing resources on a network, using an operating system called Magic Cap. Sony (SNE), Motorola (MOT), Philips, and AT&T (T) were among the partners and investors in the company, which went public in February, 1995, and ceased operations in 2002. Other early attempts resembled General Magic in that they were overpriced and locked users into hardware solutions, says Knight.

More recently, companies such as Sling Media and Orb Networks have enabled users to access their media on different devices, while Pure Networks makes it easier to connect all kinds of gizmos in the home. Consumer network storage companies like Western Digital (WDC) and Linksys, a division of Cisco, allow remote access to home content by consumers and the people they designate. So it's a good time for Wireless Grids to make its move.

ABI Research predicts 206 million households around the globe will have home networks by 2010, generating $11.5 billion in revenue. But setting up a home network can be hard for those who lack tech expertise. The task only gets harder with more sophisticated gear. "Wireless Grids can be the next huge market opportunity, not only for this company but for a wide variety of industry players from semiconductor and device manufacturers to network, software, and content providers," says Berge Ayvazian, chief research officer at Boston tech consultancy Yankee Group.

Top Talent Signs On

The company has had no difficulty attracting smart people. One recent recruit was Norman Lewis, former head of research on the convergence of Internet and wireless technologies at the French phone company Orange. After reviewing the technology, Lewis quit his job and signed on as Wireless Grid's chief strategy officer. Another convert is Jim Anderson, a co-founder of About.com, a Web site that provides consumer information and advice. Anderson is serving as an adviser to Wireless Grids and plans to provide specially designed information security technology from a company he now owns, to make sure unwanted intruders can't hack privately run grids.

In the three years since its launch, Wireless Grids has raised more than $800,000 in funding from business angels and $400,000 from companies doing research. It's now trying to raise venture capital. The company plans to make money by embedding its technology into the next generation of wireless devices, selling it as an add-on service to existing home-network offerings from telcos or cable operators, and charging a range of royalty fees.

The company will eventually release its technology to open-source software developers. But first it plans to let it loose on college campuses and see what uses the students come up with. As Lewis says, "it is often the unintended outcomes that are most illuminating."

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