Home > Topic Center

Want to bone up on wireless tech? Try ham radio

Abundant spectrum resources and an engaged research community are drawing wireless experimenters back into a hobby that many had forgotten.

By John Edwards
October 29, 2009 06:00 AM ET

💬 Add a comment   📘 Like   +1 0

Computerworld -

John D. Hays, an IT manager in Edmonds, Wash., devotes most of his spare time these days to helping develop a communications system that's designed to integrate portable two-way radios with the global telephone network. The project's goal is to create a failure-proof voice communications infrastructure that can immediately connect first responders with the outside world.

"Individuals with radios in the field could interconnect with the telephone system even when their cell phones are shut down by an emergency," he says. This would be useful in all manner of disasters, from natural to man-made.

Hays claims his research efforts wouldn't be possible if he wasn't a licensed amateur radio operator -- or "ham," the term he and his fellow hobbyists use to describe themselves. He says ham radio gives him "space and a choice of spectrum [in which] to experiment." He also values the hobby's largely self-policing regulatory structure and close-knit user community. "There are many others who would share your passion and provide [a] great opportunity for brainstorming and support," says Hays, whose ham call sign is K7VE.

For IT professionals, ham radio can foster skills that are translatable into real-world wireless and wired networking applications.

Hays says his hobby and profession have long been intertwined. His experimentation with TCP/IP over AX.25 (a ham-oriented data link layer protocol) on the radio in the late '70s and '80s "helped me understand the inner workings of networking protocols and the use of wireless transports," he says. "From this, I was able to write some widely read and popular internal papers on subjects such as TCP/IP over Ethernet verses token passing ring topology."

More recently, Hays used his ham knowledge to implement several RF-networked warehouse management systems. "My knowledge of radio transmission,

Ham radio at a glance

- Number of U.S. amateur radio licensees: 650,000

- Number first licensed in the past four years: 100,000

- Number estimated to be licensed in 2009: 25,000 to 30,000

combined with networking [skills], optimized the placement of base stations and mobile units," he says.

Source: American Radio Relay League, Newington, Conn.

Reviving innovation

Decades ago, amateur radio operators were on the forefront of scores of technological innovations, including television, digital communications, solid-state design and cellular networks. The hobby's roots trace back to radio pioneers such as Guglielmo Marconi and FM-inventor Edwin Armstrong.

But in recent years, as many potential new hams were attracted to computers, the Internet and other technologies that they could explore without passing a licensing exam, some veteran hams worried that ham radio was at risk of gradually sliding into stagnation and was perhaps even on the road toward technological irrelevance. Over time, many old-timers worried, experimenters would gradually be replaced by hams more focused on the hobby's operational aspects, such as restoring antique radios and providing communications services for community parades and other charity events.

Other hams, however, believed that the hobby was actually entering a new era of innovation, one driven by the same type of people lured away from ham radio by advancing digital technologies. They reasoned that a streamlined licensing system, capped by the FCC's elimination of Morse code testing two years ago, would, over time, revitalize the hobby. This would happen by attracting technically skilled innovators who were interested in more than merely tapping a telegraph key.

💬 **Comments (Add a comment)**   🖨 **Print**   ￼ **Like**   +1 0

From CIO.com

- 21 Chrome Web Apps for Serious Work
- Why You Shouldn't Buy a Discounted TouchPad Tablet
- Workplace Conflict: How to Diffuse Battles with Co-Workers
- What CIOs Need to Know About HP's Acquisition of Autonomy

Questions From IT Pros

- How do I protect my privacy on Google+?
- What's the best way to restore a Mac OS X Lion drive?
- How do I determine the cost of running Hadoop?
- How do I prevent a SQL injection attack?

» Read more at ITworld Answers

Additional Resources

Newsletter Sign-Up

Receive the latest news test, reviews and trends on your favorite technology topics

- ☑ **Computerworld Daily News**
- ☐ **QuickPolls**
- ☐ **Operating Systems**
- ☐ **Security**

[Your Email]

[Industry ▼]
[Job Title ▼]
[Company Size ▼]
[Country ▼]

Subscribe   View all newsletters | Privacy Policy

IT Jobs

Software Engineer, Computer Engineer,...
Fort George G Meade, MD - National Security Agency (NSA)

Chief Technology Officer
New York, NY - Purpose

Chief Technology Officer Job
Los Angeles, CA - Thomson Reuters-boston

Chief Technology Officer (CTO)
Boulder, CO - Motus IT

Senior Software Engineer, Office of the...
Sunnyvale, CA - Yahoo!

See All Jobs   Post a job for $295

[job title or company] [location] Go

Jobs by **SimplyHired**

Like

DISQUS

Comments powered by **COMPUTERWORLD**   Our Commenting Network | Policies | Privacy

Add New Comment   Login

Showing 0 comments   Sort by newest first ⇕

✉ Subscribe by email   🔊 RSS

🔺 Skip to top

About Us   **Advertise**   **Contacts**   **Editorial Calendar**   **Subscribe to Computerworld Magazine**   **Help Desk**

Newsletters   **Jobs at IDG**   **Privacy Policy**   **Reprints**   **Site Map**   **Ad Choices** ▷

The IDG Network: CFOworld | CIO | Computerworld | CSO | DEMO | GamePro | Games.net | IDC | IDG | IDG Connect | IDG Knowledge Hub | IDG TechNetwork | IDG Ventures | InfoWorld | ITwhitepapers | ITworld | JavaWorld | LinuxWorld | Macworld | Network World | PC World