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## **Industry Experts: Hackers Prey on the Vulnerability of Wireless Networks**

**Palmerton, PA. 20 July 2001, PenTeleData**, Pennsylvania's largest and oldest provider of Internet service, Data connectivity, Web hosting and Security services, today released news of another major security risk discovered with Wireless Internet services – casting a darker shadow over the value of Wireless Internet.

The latest attacks on wireless networks underscore the lack of security for PC owners and network administrators who rely on the airwaves for their Internet access, said security experts speaking at the Black Hat Briefings conference in Las Vegas, Nevada.

Tim Newsham, a researcher for security firm @Stake, recently presented details of weaknesses in the password system of wireless networks that could lead to a break in security in less than 30 seconds. The flaw is the third to be uncovered in the so-called Wired Equivalent Privacy, or WEP, protocol that supposedly secures wireless networks.

"WEP is inherently insecure," said Newsham. "So using WEP is essentially just throwing another barrier -- and a small one -- in front of the attacker."

That barrier can be overcome in 5 to 30 seconds in certain cases, he said.

Specifically, wireless systems that rely on a 64-bit key -- used in many homes and earlier hardware -- can be broken in less than a minute, letting the attacker see the data beamed across the networks.

Newer 128-bit wireless LAN (local area network) cards are stronger. But poorly chosen passwords can still be cracked with an old technique known as a dictionary attack: Using a list of common passwords and a dictionary of words, the potential intruder can try various combinations until the password is broken.

Ian Goldberg, chief scientist for private network seller Zero Knowledge Systems, discussed details on a variety of techniques for cracking the encryption of wireless networks.

“In the end, people need to understand that wireless networks are completely insecure,” he said. “For the security conscious, virtual private network technology or other encryption techniques should be used,” he said.

"People need to treat wireless networks just as they do the Internet," Goldberg said. "That means using the proper encryption technology to secure their data."

These repeated security warnings surrounding the use of Wireless networks have driven consumer attention toward wired, dedicated high-speed Internet access solutions.

“All of our high-level, dedicated highspeed services – such as VPNs and T1s -- are now more popular than ever, especially since wireless Internet access services became commercially available,” said Jeff Reinhard, General Manager of PenTeleData. “This demand has driven the price of our traditional high-level services down to the consumer level.” Based in Palmerton, Pennsylvania, PenTeleData is Pennsylvania’s largest and oldest Internet data provider and covers three states.

“Consumer awareness has risen because of news reports and product advertising about wireless Internet services,” said Reinhard. “Potential customers are interested in exploring the wireless alternative, then commit to a traditional Internet provider like PenTeleData. Once they analyze this wireless technology, they realize the weaknesses and then side with a wired solution. PenTeleData is the ultimate measure in security, dependability and customer care.”

Consumers are attracted by the affordability of the proposed wireless service, said Reinhard. “Historically, highspeed dedicated Internet services have cost five times as much. The less expensive the service, the broader its application. Today, prices have dropped so dramatically on T1 Internet connections that we’re routinely winning contracts against wireless Internet providers in our region.”

“Consumers are slowly but surely getting the full story on this wireless product, discovering wireless Internet service isn’t the deal of a lifetime,” concluded Reinhard. “We’re signing up more customers because they know they can count on PenTeleData offering reliable, secure services.”

Founded in 1994, PenTeleData is currently Pennsylvania’s largest provider of Internet service and Data connectivity. PenTeleData has engineered a sturdy, multi-megabit, redundant, fully-meshed, privately-owned network. Running on high-speed lines (OC-12, OC-3, DS3, DS1) and OC-12/OC-3 SONET rings, the PenTeleData ATM network (asynchronous transfer mode) -- with more than 60 Points of Presence (PoPs) throughout Pennsylvania, New York and New Jersey -- delivers Voice, Video, Data and Internet services through the region.

PenTeleData remains a family-run organization with its heart based in northeastern Pennsylvania. PenTeleData was the first company in the United States to offer High-Speed Internet access over a standard cable television connection. These milestones define PenTeleData’s commitment and dedication to providing leading Internet and Networking services to the region.

In addition to our state-of-the-art high-speed connections, here is a sample of some of PenTeleData’s dynamic professional services:

Dedicated Internet Access  
Dialup Internet Access  
High-Speed Cable Internet Access  
High-Speed DSL Internet Access  
Internet Access Filtering  
Offsite Managed Firewalls  
Shadow Services  
Wan / MAN Design & Configuration  
Private / Public Networks (ATM, Frame  
Relay, Cable, DSL)  
EtherPoint  
Point-to-Point High-Speed Lines (T-1, T-3,  
OC-3, OC-12, OC-48)  
Onsite / Offsite Consulting  
Onsite Managed Firewalls

VPNs (Virtual Private Networks)  
Web Design & Hosting  
Secure Web Services  
E-Commerce Solutions  
Web Database Services  
Real Audio / Real Video  
Managed Web Servers  
Managed Mail Servers  
Mass Data Storage  
Remote Backup Data Storage  
Hardware Sales (Fore-Marconi, Cisco, 3Com)  
Warranty Support  
Integration Service Team