

BINARY BEAT

With AlphaShield as cloak, security worries few

James Coates

January 25, 2004

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Today I'd like to show you how to solve 65,535 problems you may not even know you have when you access the Internet. The solution comes in the form of a small metallic box from a western Canadian company called AlphaShield Inc. (www.alphashield.com).

But first, a smidgen of background about why we need shields:

Whenever any of us connects a personal computer to the Internet, it starts incessantly broadcasting our address, telling the whole wide world we are online and ready to be mugged. The address being shouted from the virtual rooftops takes the form of the so-called IP address assigned by our Internet service provider.

With your Internet Protocol address in hand, a skilled hacker can attack through as many as 65,535 points of entry called ports.

That's 65,535 ways tech-savvy crooks can try to access your credit card number and 65,535 ways these creeps can try to fry your operating system. With the IP at hand, a hacker will flood a targeted computer with requests to exchange data. Each request goes to a different sub-address or port. It's like twisting a radio's dial to find a station--only with a computer the listening goes both ways.

Recent attacks, such as the infamous MS Blaster worm and the SoBig e-mail virus, have been able to wreak havoc simply by finding an open port and using it to make computers do hurtful things. Those include sending huge numbers of bogus e-mail messages in the victim's name or corrupting the operating system so that every time the computer boots up it shuts down within a few seconds.

On the other hand, unless you open a port, nothing at all can be accomplished on the Internet. Ports must be opened to send e-mail and to receive it. Web pages are called up by sending out an address, and the data must pass through a port to display on your screen.

Many people buy firewall software to guard their ports, but this isn't a pretty picture. A firewall must be

configured to order some ports open and others blocked. Worse still, most firewalls continually pop up messages reporting efforts to infiltrate the machine.

With the Internet's cacophony of traffic always swirling, addressing these continual probes, called pings, can make using firewall software seem worse than getting hacked.

So the Canadian engineers behind AlphaShield in Burnaby, British Columbia, developed a small box that avoids the whole open-port-versus-closed-port issue by using artificial intelligence to automatically hide a user's computer and to dole out the IP address only to those where it is absolutely essential.

Vikash Sami, the chief executive officer at AlphaShield, explained that the artificial intelligence programming built into the device's circuitry permits a computer to reach out and connect with other machines and do things like download files and exchange Instant Messages.

The way it handles IM traffic illustrates both the powers and the drawbacks of cloaking one's computer.

With your AlphaShields up, only you can initiate these messages to your friends. They cannot see you and call first. But once you're connected, IM works as always. The same restrictions exist with video conferencing and other collaborative pursuits.

For example, an AlphaShield user can participate in legitimate peer-to-peer file transfers but cannot use popular piracy sites like Morpheus and Kazaa because these services require participants to post an IP address in order to list all of the files that their owners will share with others.

The device stops a great many pop-up ads but far from all because it permits pop-ups generated by the Web page being visited itself. Still, those third-party pop-ups that sniff out your IP address are dead meat. So are those dangerous Windows Messenger windows that appear at the bottom of the screen with ads and dangerous ActiveX and Java programs that look like official stuff from Microsoft.

In tests for this review, the AlphaShield worked fine using remote PC access services like I'm In Touch, which I use to access my home computer from other places. But it does not work with stand-alone remote control software like LapLink and PC Anywhere.

The device works with single computers and home networks based on cable/DSL routers. But with ISPs that provide a different address every time one logs on, it seems only one computer can be active at a time.

One very nice feature to the AlphaShield box is a separate Ethernet outlet that lets users plug in devices that can't work with the IP cloaked. This includes voice over Internet Protocol telephones, video surveillance cameras and home music networks.

One also can plug a computer into the auxiliary port and access the Internet without any protection whatsoever just as though the box were a proper hub.

If you're among the ordinary Americans with a high-speed Internet connection that is always on, chances are excellent that plugging this beautifully simple hardware firewall into your computer will deliver

peace of mind, solid security and a far more pleasant Internet experience.

It's like going instantly from being naked as a lighthouse to becoming as invisible as a panther in a coal mine.

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