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USER REPORT

Z/IP Sustains Longtime Connection

Telos Systems' IP Codec Connects Two Studios, Delivers Audio Stream for Three-Hour Talk Show

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ATLANTA The prevalence of broadband Internet connectivity, along with today's robust VoIP technology, made me think a few months back that a broadcast-quality application was just around the corner. I was excited to learn that Telos Systems was developing a resource to do just that.

I was invited to beta test the Zephyr/IP and eager to see how feasible it was to use the Internet to deliver reliable broadcast-quality sound over long periods of time.

Going the distance

The Telos Zephyr/IP (Z/IP) uses an IP codec that is optimized for operation over the Internet. My experience using the Z/IP over the past three months has exceeded my expectations.

Before first using the Z/IP, I had a few biases: How would an Internet application like this sustain a reliable and consistent audio stream over long periods of time? How distinguishable would the audio from the Z/IP be vs. the sound from the main studio? Would there be a significant delay from one end to the next, wreaking havoc on dialogue between hosts in different studios? What about configuring the Z/IP to even connect through a variety of networks, firewalls, routers and switches?

The Z/IP's ability to sustain a reliable audio stream was the biggest concern of mine because I am using the Z/IP to con-

nect two studios for a talk show that runs for up to three hours. With the remote studio set to stream at a 128 kbps rate, the quality difference is negligible. Listeners are surprised to hear of the remote nature of one of the hosts when it is mentioned by them during a show. It takes a person with a discerning



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The main studio is located in Akron, Ohio, the other is in Atlanta. There are two main personalities involved, one located in each city, and they are joined by others in the main Akron studio. The Atlanta studio is a home office environment with a typical consumer DSL Internet application installed.

After working through the installation, my biggest concern became a non-issue. I have yet to experience any problems with the Z/IP's ability to deliver over long periods of time. The end of the third hour is always at the same quality level as the first five minutes, and I have never experienced a dropped connection.

What about the host in the remote studio sounding significantly inferior to the rest? I am delighted to report that this has been a non-issue as well.

ear to know that one participant is outside the universe of the others.

These challenges were behind me, so I turned my attention to the impact of a delay between Z/IP boxes.

I am, notoriously, one to step on a person's next sentence when speaking on a cell phone, and thought this same effect could cause problems for the personalities during a broadcast. After all, I would be jamming a whole lot more information over the Internet than a typical cell phone.

Though a slight delay does exist, it is negligible and does not interfere with their ability to interact seamlessly. Another concern off the checklist.

Missing link

My smallest bias ended up becoming my only challenge.

When I received the Z/IP from Telos, I

could not get a link between the router and the Z/IP. It seemed as if the Z/IP recognized some networking hardware but not others. I am smart enough to know that it is unrealistic to expect everything to go perfectly, especially with a beta Z/IP, so I figured this would give me an opportunity to better understand Telos' repair and service team.

The staff was great to work with and

they responded quickly to resolve the problem. It was good to build a rapport with them through this issue, as they gave me additional skills and insight that I benefit from today.

After getting the hardware to talk, I had to get the Z/IP to talk to the Z/IP server at Telos so the studios could be linked. The Z/IP includes a studio codec and a PC-based server that addresses firewall and

Network Address Translation issues. With a little configuration, we were in business.

The Z/IP also has the capability to connect via WiFi connection. This was a nice surprise. I have used this feature on several occasions and it performs as reliably as if it were connected with a network cable.

For more information, contact Telos Systems at (216) 241-7225 or visit www.telos-systems.com. 