

Gigabit Powerline Networking offers speedy solutions

August 7 2009, By Craig Crossman

Although we've always been able to see and hear in "High Definition," we think of that phrase as belonging to the 21st century. High Definition or HD devices such as television sets, Blu-Ray DVD players, digital still and video cameras are all considered to be today's top-of-the-line consumer electronic devices. Even audio equipment and broadcast radio now have the same HD bragging rights. If you want the best technology has to offer in video and audio, it's got to be in HD. But there's a price to be paid for HD and while one of them is most certainly at the cash register, another is to be found within the additional bandwidth one needs to accommodate all the additional digital information that HD demands.

Moving HD content from one place to another requires a bigger "pipe" to get it there in a timely manner. For example, if you want HD content on your computer to be played on your HD TV in the living room, your wireless connection has to use the newest 802.11n standard to keep up but even that 300 [megabit](#) per second (Mbps) speed may not be fast enough, especially if there are others in your home using the wireless network at the same time. And chances are, running an Ethernet cable from the computer's location to another room isn't going to look very attractive. But Belkin has just come up with a solution to deliver HD without the messy wires, at least not the ones you can see. Powerline Networking is a technology that uses your home's existing electrical wiring to deliver digital information from one room to another. Those wires are already out of sight and out of mind so why not use them to communicate?

Powerline Networking has been around for awhile now but until Belkin's new Gigabit Powerline HD Starter Kit, the technology was sorely lacking in communication speed, the fastest of them offering only a 200 megabits per second connection rate. Belkin's Gigabit Powerline HD Starter Kit offers a connection speed of up to 1000 Mbps which is a gigabit.

The basic Powerline Networking configuration requires two devices that each plug into any AC electrical outlet. Typically, you plug one unit into the wall next to your computer and also plug an Ethernet cable from your computer's router into the device. The other unit plugs into an electrical outlet located in another room that's next to a device that needs to be connected to your computer. An Ethernet cable from that device plugs into that Powerline Networking unit and you're all set.

With gigabit deliverability, most any HD content can be easily transferred between any attached HD device. But in addition to their speed, there are two other features I like about these Powerline adapters.

The first feature is the physical shape of Belkin's units. A Powerline Networking device must be plugged directly into the wall. You cannot plug these units into a power strip as most have some kind of surge suppression that filters out the signal these devices use to communicate with each other. Other units I've seen have their AC power plug located towards the middle of the device. So when you plug one into a typical AC power outlet, the body of the unit blocks the other wall power plug, rendering it useless. Belkin's model has its AC plug located near the edge so when plugged in, it leaves the other AC plug completely accessible.

The other nice feature is built-in security. All of these devices use the same signal standard so that they can work with each other regardless of the manufacturer. The downside is that anyone with one of these devices could access your information by just plugging one in at another room.

The Belkin model defeats this from happening by implementing a simple push-button security procedure. When you first power them on, you press a button on each unit which creates a coded communication between them. From then on, their information is encrypted and can only be decoded between those units. Any other units added later on will not be able to decode what is being sent. If you wish to add another unit later on, you must press the button on the original device and the button on the newly installed one before they will work together.

Belkin's Gigabit Powerline HD Starter Kit sells for \$149.99 and comes with two units to get you up and running. Life is in HD and now you can enjoy it wherever you are in your home.

More information: www.belkin.com

(Craig Crossman is a national newspaper columnist writing about computers and technology)

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