

ACT Newsletter

Presented by Applied Computer Technologies

Can Voice-over-IP help control costs?

HP 17" Flat Panel Monitor Sale



Sale Price \$199.00

*The best monitor
just got cheaper !*

Display type—Active TFT

Viewable area - 17.0 in

Native resolution:
1280 x 1024 @60 Hz

Brightness -Up to 300 nits

Contrast ratio: Up to 500:1

Warranty:
3 Years Parts and Labor.

Inside this issue:

- **Saving Money with VOICE-OVER-IP**
- **Internet Filtering tips**
- **Selecting Wireless Network Products**

The hottest topic in the computer industry right now is voice-over-IP (VOIP). What is it and what can it do for you? Simply put, it's a way to merge Internet access services and phone services together resulting in a single lower cost than the two services separately.

Essentially, we, as providers, piggyback your phone lines onto your broadband connection line and support your existing phone numbers on it thereby reducing line costs while increasing services. Most organizations today have three distinct components to the voice and data costs. A local phone bill for the phone lines you rent. Second there are the usage surcharges for local and long distance calls. Finally, there is your broadband connection be it a T-1 line, DSL line, satellite or cable.

You can use your existing phone system or replace it with newer IP phones that plug directly into your data jacks. VOIP also gives you a wealth of other features such as "find me" technology that lets the system route your calls seamlessly to home, another office, your cell phone or any place else in the world you might be. Your callers never know the difference. Want your phone messages forwarded to you as e-mails? Sure, why not! Electricity out in your office and your phone system won't work? Not with virtual VOIP. Use your digital dashboard to re-route calls to cell phones or home from anywhere and presto you're back in business. Rather than fill this newsletter with more details than you need in a short briefing, why don't you give our office a call and ask to have more details sent to you.



**Sometimes VOIP Can Save
You Bunches of Money !**

Selecting Wireless Products For Your Network

One of the common questions that we get at ACT is "What's the difference between the wireless products sold by Best Buy and other superstores and the products we sell?"

Well, that's an easy question to answer but bear with me, the answer isn't short.

First, most wireless access points (the transmitters) sold in the super stores are intended for home use. As such, their transmission range is pretty limited and they don't broadcast well through walls. Many start losing speed (data throughput) in as little as 10 feet. The further you try to broadcast a signal, the slower the speed. The "professional" versions have stronger signals that maintain transmission speeds over longer distances and go through obstacles more efficiently. For example, we installed a wireless network in a local school not too long ago and placed 3 Cisco access points in the schools hallway and covered every corner of every classroom with maximum signal strength. Another school, that asked us to rescue a project started by a volunteer to install mass market wireless access points purchased at the superstore, needed over 20 because they wouldn't penetrate the cinderblock walls of the classrooms.

Second, most discount access points broadcast only on one channel. If a large number of computers are trying to communicate on that single channel, it can become like a crowded highway at rush hour. Everyone slows down. Also, if you have multiple access points all



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Internet Content Filtering

Since the federal government mandated Internet Content Filtering for schools that accept federal funds, we get questions all the time about how to best implement filtering without breaking the bank. Some schools have tried a “do-it-yourself” model and have found that maintenance of an in-school filter requires more time and effort than they anticipated. Other organizations have bought expensive products like N2H2 and wind up waiting forever to get their adjustments implemented.

We've been providing filtering products and services for many years. Here are some of the issues that organizations we've talked to have brought up. Compare them to your own list and see if your experiences are similar:

- Limited Category Blocking—Many filters don't block some sites that they want their users to avoid because they don't fit into a particular category.
- English-Only Filtering—Most content filters only recognize English and the bi-lingual students teach the others how to get to foreign sites that are objectionable.
- Savvy Users—Users can figure out how to get around improperly installed filters.
- No Flexibility—Some filters treat all users the same. It's either block everyone or no one. There's no flexibility.
- Slow Support—Getting changes made to the filters takes forever. Either we have to wait for a volunteer to make time to come in or the provider takes forever to evaluate our request.

ACT attempted to address these issues in our latest Content Filter Release – SchoolGuard. Our filters block phrases in 4 different languages, and updates are implemented in real-time as soon as you ask for a change. Ask for a demonstration of SchoolGuard and we'll show you how to improve you schools Internet Content Filtering and save money at the same time.

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broadcasting on the same frequency, they will interfere with each other and create all sorts of problems. Again, professional grade wireless access points are designed to deal with that problem by transmitting on several channels to avoid conflict.

Third, most inexpensive access points don't have the flexibility to use external antennas or power the access points via Ethernet cable. The former gives you the flexibility of more accurately directing a transmission signal, and the later eliminates the need to run extension cables to power access points installed in a hallway for example.

Finally, and most importantly, the security associated with “inexpensive” access points is significantly weaker than the professional models. That means that your network can be more easily hacked or penetrated.

One other note about the mass market wireless products for your consideration: One of the “advantages” of these products is that they are pretty easy to install in a basic configuration and the instructions are worded for novices. This encourages a lot of “amateurs” to think they know all about wireless products which in turn results in a lot of defenseless wireless installations just waiting to be hacked. Be careful when entrusting your network to volunteers like this. Ask for references before entrusting your wireless installation to anyone.

Which products should you buy? The uses of wireless are so varied that the answer won't be the same for each circumstance. Sometimes, the economy solution will make sense and others will benefit will by a professional approach. Your best bet is to contact an experienced professional and get some advice before you design your solution. They can help you pick a product that meets your needs and within your budget. See if they adhere to the principles laid out here. Then check their references before placing your order. OR CALL US. Advice is always free at ACT. . .