

Wiring needs expand with gadgets

For today's plugged-in lifestyle, pros say, the extra cost is worth it.

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No contractor would consider running garden hoses to bathrooms rather than real plumbing.

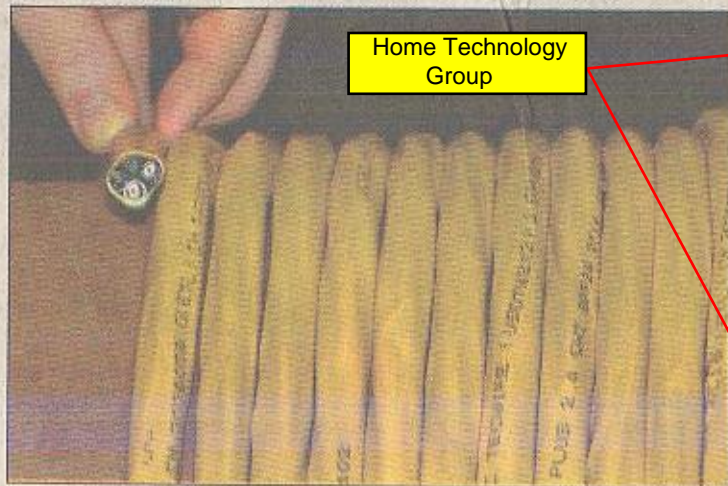
So why do so many of them build new homes with wiring that won't support today's digital devices?

Computers, modems, telephones, television sets, home and baby cams — not to mention technology that is still on the drawing board — all require connectivity and speed that a couple of skinny copper wires just can't supply.

Oli Gulyas at Innovations in Home Theater says a modern, nonelectrical wiring system is "the backbone of the house for technology." Brian Cabral at Residential Technology Services calls it "digital plumbing."

Builders, however, often balk when they learn that wiring for the future might cost them another \$1,000 or more per home.

"When we tell builders, 'You



GLORIA FERNIZ/STAFF

A cutaway piece of conduit shows wire for many electronic devices. It holds coaxial cable (on the bottom and right) and 'Cat5e' (top and left).

have to run this wire to key locations in the home,' they just want to run a phone line and cable," says Steve Quinney of Acoustic Designs. "Sometimes, they aren't even putting in phone lines and cable for each bedroom."

Price also affects decisions made by homebuyers, especially those concentrating on tangible, decorative benefits rather than something hidden in a home's infrastructure.

"Some people come to us saying, 'Well, I already have the

marble that some guy in Italy carried on his back for five miles and it's very expensive and it's going to be wonderful,'" Cabral says with a smile. "So, I'm against that expensive wiring."

That might be an expensive mistake. Putting the right wiring in a home when the walls are exposed, either during new construction or renovation, is much cheaper than opening walls that have been painted, wallpapered or covered with fancy and expensive faux fin-

WHERE TO GET WIRED

Acoustic Designs
642 W. Rhapsody Drive, Suite C
(210) 341-7020

Innovations in Home Theater
16630 San Pedro Ave.
www.satheater.com
(210) 490-8088

Residential Technology Services
www.WireMyHome.net
(210) 481-3331

ishes.

Confusion and misinformation about emerging technology, however, has only added to many homeowners' uncertainty and indecision. Some, for instance, believe that residential fiber optics — touted for years — is right around the corner. Others want to rely solely on wireless, which is already here.

Although it is true that communication companies have run thousands of miles of fiber-optic cable, experts say much of it isn't in use yet. In part, that's because current residential devices can't take advantage of its speed and the industry still hasn't settled on a standard fiber-optic cable size and composition.

The biggest problem with wireless communication? At its best right now, it's just half as fast as the wire that tech-savvy home installers currently use. And wireless also is prone to signal dropouts, dead zones and security breaches.

"Wireless is more of a convenience solution, so you can sit in bed and access your printer or your files," Gulyas says. "But it shouldn't be relied on as the only solution, just like wired isn't the only solution."

So what kind of wire can cover today's needs and those of the foreseeable future?

The current gold standard is called "Category 5 enhanced." Dubbed "Cat5e" for short, the wire usually features four pairs of smaller wires, each pair twisted together. All the pairs also twist around each other, a construction that helps provide protection from crosstalk and outside interference.

Key locations such as media rooms, home offices and computer workstations might require both Cat5e and coaxial cable, which is used for cable and satellite television hookups. Cat5e and co-ax can come bundled together in a plastic-jacketed configuration called "structured wire." The wires and cables in the bundle, about

the diameter of a quarter, also twist around each other.

Installation of Cat5e and structured wire require technical know-how. Splicing it, bridging it, pulling it taut or bending it sharply reduces its effective speed.

In a typical high-tech configuration, all the Cat5e and coaxial cable in a home runs to a central control panel. The panel, equipped with routers and switches and mounted in a closet, acts as the nerve center of the house.

Wiring for phone, CATV, computer, cameras, audio, home theater and lighting controls costs about \$1 to \$1.25 per square foot, so the bill for a 2,000-square-foot home could range from \$2,000 to \$2,500.

For buyers who simply must have the latest and greatest — the much-touted fiber optics, for instance — Gulyas recommends installation of conduit or other tubing between the main panel and key areas in the home so additional wiring or cables can be installed in the future.

"That way, there's no fear of having the right wire, the right connector or the right anything," Gulyas says.