Re: Best way to replace DSL with point−point wirless?

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- *From*: ibuprofin@xxxxxxxxxxxxxxxxxxxxx (Moe Trin)

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On 05 Jul 2008, in the Usenet newsgroup comp.os.linux.networking, in article <486f0ea6$0$26074$db0fefd9@xxxxxxxxxxxxxx>, A J Hawke wrote:

> Moe Trin wrote:
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> > Kadin2048 wrote:
> >
> > Generally true − but one individual in another newsgroup mentioned the problems he had installing a network in a concrete bunker (in Israel), where drilling holes was next to impossible (meter/40 inch thick reinforced concrete walls), which also made using wireless nearly impossible, power lines were limited, etc. But other than that, it's often possible to get wiring in to most places.
> >
> > I've had good luck in several places I've lived, running wiring inside
> > the forced−air ductwork. It provides an easy way of getting from one
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> > > floor to another, and is big enough so that feeding a fish tape and
> >
> > actually pulling the cable is easy. (Easier than actual condit, really.) Non−destructive too, which is a plus if you're not allowed to
> > drill holes.
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> As a former comms engineer it never ceases to amaze me how people think you can get a service where they want it, without running any visible cable at all.

Much depends on how the house is constructed. My previous house had a crawl space under the dwelling, and while cramped it was accessible allowing me to install network cables as needed. The current house is build directly on a concrete slab, and the only access would be the attic − which is heavily insulated (18 inches of blown−in fiberglass over the ceilings). A lot more work, but again, network cables added where needed.

In the 1940s and 1950s, people learning the (house) electrical trade were taught a technique called "old work" which was used to install wiring in an older house. It used such tricks as removing the baseboard (wooden trim at the bottom of the wall) and hiding the wires behind that. Where needed, you could drill a hole large enough to pass the wire into the wall just below a convenience outlet. Another trick was to dig a channel in the plastered wall surface, stick the wires in there and patch/paint to hide the gouge work. There was also a product allowing wires to be run in metal channels (raceways) on the surface of the wall. Given todays wiring requirements (outlets every six feet, no more than a room on a given circuit, etc.) and the large amounts of electrical power needed in the home today, these techniques wouldn't be very practical − although the surface wiring materials are still found in DIY stores like Home Despot. The 'behind the backboard' technique does work for installing network cabling, as I used it to reach the exterior walls which are out of reach from above..

> In the UK telecom giant BT introduced a '3 metre' rule. Basically, you could have your termination up to 3 metres away for where the service attached to your home.

Wouldn't have worked very well in my last home − the phone and power attached to the house on the far side of an attached two car garage, about 5.5 meters / 18 feet from the nearest living space. And of course, the cable TV and network connection came in on the other side of the house.

> All wiring mostly visible.

There is a _recommendation_ in most building codes here that new homes be wired for communications devices − this used to mean telephone only, but even my 19 year old home was built with wiring for cable TV in 4 of the rooms. Today, some builders are advertising their homes have pre−installed network cabling that meets the building code recommendation. What they DON'T tell you is that this is Cat1 wiring (wet string) and was probably installed by the apprentice electricians helper using a power stapler (meaning the wires are often shorted).

> But then, luxuries like forced air & service ducts are a dream here −

It's cool today − only going to reach 43 degrees... Celsius (109F), so air conditioning is mandatory. This house has 7 Tons (84000 BTU/H = 24.6 KW) of central air. But I was told that British builders always put the plumbing outside so the repair crews could have access to it when it froze.

> > despite property being some of the most expensive in the world (and most shoddily built, but that is another story)

I dunno − I haven't seen a builder who isn't building using minimum cost materials and labor. Somehow, they get the result past the city building inspectors, and that's all they care about. It's hard to build a house for a mere $200/square foot (about 28 times the minimum hourly wage). Besides, the builders warranty is a whole 24 months!!! ($200/ft^2 is on the low side − houses were selling for $235/ft^2 before the bubble burst, and no, I'm not down town − I'm 28 _miles_ from down town.)

When I bought this house, I noted that the water supply pipe coming out of the ground was 1 1/2 inch soft copper, and thought − "wow, quality". About a year afterwards, a neighbor mentions that the builder had used Polybutylene pipe there. The PB pipe has a history of splitting, but it was cheap. I also notice that the 240 Volt wiring used here for high power service such as the air conditioners, air handlers, water heater, clothes drier and kitchen stove (lighting and general use is 120V) was all aluminum wiring. Fifteen years after it was built, I notice low water pressure, and it's flooding the yard between the water meter at the edge of the property and the shutoff at the side of the house. Turns out the builder _had_ used PB pipe there, and transitioned to the copper about a foot below grade. The plumbers who replaced the pipe noted that the run unnecessarily ran under the concrete slab that is the driveway, and suggested this was done to hide the pipe from the city inspector.

Old guy
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