



Broadband: You Need It. Here's How to Get It

By Steven S. Ross ■ *Editor-in-Chief*

If you own or manage a multi-dwelling property, how much bandwidth should you plan for, and how should that bandwidth be supplied? Too much, and you build in unneeded expenses. Too little and you risk losing customers. And once you decide on the bandwidth need, how do you supply it? Fiber, sure. But fiber all the way to the dwelling unit? Or fiber to the basement and coax or twisted pair from there?

These are the questions our experts answer in this issue. You'll get even more detailed advice at our annual Broadband Summit in Dallas September 11-13.

How much Bandwidth?

On page 16, David R. Kozischek of Corning Cable Systems makes a strong case for 25 Mbps now, and 40 Mbps minimum by 2012. He shows a number of ways to get to that point, and notes that coax or twisted pair can do the job until then, although with some difficulty. The difficulty translates into higher operating expenses and more customer outages and complaints, and that's in the near-term, five-year time horizon. Yes, Corning sells fiber optic cable and accessories, but Corning makes money on ADSL, VDSL and DOCSIS deployments as well as fiber-to-the-home. Also, we say that his predictions for expected bandwidth demand are actually conservative.

Systematic Design Approach

If Kozischek convinces you, how do you go about installing the fiber? Starting on page 24, Randy Reagan, Jeff Gniadek, and Yu Lu of ADC explain the options for different kinds of MDU properties – high-rises, mid-rises, campus-style, townhouses and so forth.

We concentrate on the most common situation, low-rise campus-style MDUs, starting on page 32. There, David Stallworth of OFS shows how to design MDU networks that cost less than \$100 per living unit in material and splic-

ing labor. Fiber cable placement and electronics costs are extra, but the overall cost is comparable to that of any new coax plant. In fact, right now, coax is almost certainly more expensive. And that's for plant that's less reliable, takes up more on-site space, costs more to maintain, and delivers less bandwidth.

There are still big barriers to installing fiber, especially in smaller MDUs. Where do you get the contractors? Do you still have to go to a single system builder to design your network end-to-end? What if you want to expand later? Or do routine maintenance? Our hot products listings this issue (starting on page 43) and Top 100 Award listings in July, suggest that these problems are well on the way to being solved. If you are planning now for construction this winter or spring, you should be surprised at the number of options you have.

Multiple Business Models

For larger developments, consider what companies like Broadweave (it may have been first to do this, starting in 1999), Zoomy Communications (see page 38), Connexion Technologies, and Matrix Fiber Communication are doing. Don't rule out a deal with existing PCOs, or with independent telcos like Shentel (see our latest quarterly list of indie telco deployments in the July issue) or with RBOCs like Verizon Enhanced Communities or even AT&T (which builds FTTH mainly in greenfield settings only).

The key point is that property owners and managers have many, many options in terms of business models. Open access? One ISP for all services? Co-ownership? Satellite video delivery? Go with the incumbent? No longer is it simply a PCO (private cable operator) versus franchise cable operator world.

There are many options in technology as well – GPON or GePON? Point-to-Point? Aerial fiber or buried? Add WiFi or WiMAX hot spots? But the fiber

technology itself is mature, standard, and remarkably craft-friendly.

With fiber, you end up with a network where theft-of-service is nearly impossible. Where truck rolls are rarely needed – customers can often provision their services themselves through a Web interface – and where maintenance is simpler than with coax.

You also may end up in a fight with your insurance company (they are just figuring out that 911 service, for instance, can be delivered over fiber, and that fiber is as reliable or more reliable than copper) and with the local incumbent (which may threaten to cut off service to your property if you go with an independent provider).

We've been covering all these issues for years, of course, and in a way that we trust is understandable to those who didn't grow up working for a giant RBOC (Regional Bell Operating Company, to you young folks), or who don't have a law degree.

But nothing beats our Broadband Summit for first-hand advice. As you can see from the Summit program in our centerfold this issue, almost all our speakers work for organizations that build, own or manage property or third-party broadband networks. There are plenty of equipment vendors, and you'll have plenty of time to meet them in the exhibit areas. But the program, as always, is meant for users and customers to exchange ideas. You're the ones spending the money and taking the risk. Feel the excitement and exchange great ideas at the Broadband Summit, lakeside at the Marriott Las Colinas near DFW. **BBP**

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