Stop the Infighting Over Federal Funding. Now!

With $20 billion already committed for deployments and customer subsidies, and another $45 billion quite possible, the broadband industry should be in booster mode. Broadband stakeholders must stop arguing about which technologies and entities get the most funding.

By Steven S. Ross / *Broadband Communities*

There's a lot of great news on federal broadband funding. But squabbling among the community of broadband stakeholders could turn off the spigot. By late June, the existing and possible largess looked like this:

- Roughly $20 billion in existing funds, already appropriated and authorized in the USDA ReConnect Loan and Grant Program, COVID-19 relief funds and the next phase of FCC subsidies through the Rural Digital Opportunity Fund (RDOF)
- State initiatives that add some state and local funds to COVID-19 relief funds. The total of non-federal money looks like less than $1 billion, but it is often tied to federal largess.
- A proposed new $45 billion in the White House "bipartisan" infrastructure agreement with five Republican senators

The White House is calling this unwieldy package a "$65 billion investment in broadband," and it is – if no one looks too closely. The final infrastructure bill is not likely to be ready for a vote in the Senate until September. But the amount originally proposed for broadband, about $100 billion in new money, has already been halved. The new money would be spent over time. The infrastructure bill as a whole has an eight-year time horizon. It is unclear whether broadband would have a shorter period for new deployments. Even $45 billion, given today's low interest rates and easy availability of money and several million remote premises served by low-Earth-orbit satellites, would go a long way toward meeting the need.

Senate staffers tasked with writing the details into law and their colleagues in the House are buzzing about the oddity of responses by the industry and special-interest groups. A few major carriers warn that they should not be excluded from competing for funding. The Fiber Broadband Association says fiber should be the default technology choice. The Wireless Internet Service Providers Association says project rules should not be written to exclude point-to-point wireless. The usual gaggle of corporate "independent" think tanks are appalled that government should be involved at all.

Progressives say municipalities and nonprofits should get preference, and that "regionalization" – often cooperation with existing small carriers in a geographic area – should be a last resort. Small carriers are just waking up to the issue, but tend to interact with state governments when they wish to lobby. This sometimes percolates upward to local members of Congress, who rarely have any understanding of broadband issues.

All this has exposed the obvious: that broadband is a rather open industry with many diverse interests and perspectives, operating in a nation with wildly varying needs and population density. But it also obscures the commonality of interests that should be highlighted.

INTERESTS OVERLAP

- Major carriers take the heat, but they generally are too overextended to invest in new builds. Large telcos forgo even easy business, such as providing service to multiple-dwelling-unit buildings and new planned-unit developments. Indeed, they have so much debt on their balance sheets that looking ahead to the day when interest rates will rise enough to be onerous, they are open to leasing backhaul and pole space from local carriers for 5G mobile cell sites. Hint: They like carriers that have invested or will invest in fiber. National carriers concentrating on special circumstances, such as Hotwire and Pavlov, fill some of the gaps.
- Carriers that serve small communities but have avoided the cost of expanding into sparsely populated surrounding areas or the cost of improving bandwidth see a threat in federal money that would fund competitors yet do not see much justification for diluting their profits by expanding themselves. They doubt that any nationwide program can be nimble enough to allow fair competition in all or most situations.
- Carriers serving small towns are sometimes neglected fragments of national cable companies. They generally

have a local competitive advantage, especially in fees for interconnecting with national networks. That, in turn, allows them to capture E-Rate program business, serving schools and local government facilities. National carriers devote little or no capital to improving or expanding services in these fragments.

- Local governments, nonprofit organizations, and profit-making but public-service local entities, such as electric cooperatives, now serve about 500 communities. Broadband is usually a regulated industry, either a so-called Title-2 "telecommunications" business or lightly regulated at the federal level. But depending on how one counts the reach of state regulation, 18 to 22 states restrict public broadband one way or another. The state of Washington, first to host large amounts of publicly owned fiber networks 20 years ago, just passed contradictory laws expanding and restricting public broadband. These are interesting times.
- In many urban areas, broadband is available but too expensive for many families. Subsidies are available in COVID-19 relief (temporary!) and through the FCC (small!). However, as I detailed in this column nearly a year ago when showing a relationship between childhood poverty and broadband access, the benefits of fixing this far outweigh the cost.

When looking at all these concerns and interests, some near-universal truths strike me. This magazine has always said it is logical that the entity with lowest cost of capital should generally build the system. There should be no limits on who gets to build a broadband system. I developed a "multi-neighborhood" financial model (available free at www.bbcmag.com/tools-and-resources/ftth-financial-analyzers) six years ago because deployers were trying to build fiber networks with wireless in a few difficult areas. The wireless actually enables the fiber by providing an economical, if temporary, solution. Converting from wireless to fiber is far easier than navigating the higher sunk costs of copper. That's especially so given that most premises use a gigabit wireless gateway, typically 802.11ac or ax (also known as Wi-Fi 6).

SUPPORT FOR DIFFERENT MODELS

Broadband Communities supports regionalization, in which multiple entities join together to run a system but may remain independent. They could, for instance, include a public-private partnership between a municipality and a local, Tier-3 carrier, along with an electric co-op, a wireless internet service provider (WISP) or cable company, a private network built to service a commercial or an industrial zone and another Tier-3 carrier.

The magazine supports 5G cell sites that can handle all available bands so spectrum can be recycled more efficiently and the sites in a region can be more easily serviced or upgraded when needed. The magazine supports software-based solutions for the same reasons, especially at the network edge. **Broadband Communities'** models suggest that collectively, service providers can save at least 20 percent on marketing and operating costs by cooperating, even as they boost revenue with mobile backhaul and eventually with communications for autonomous vehicles.

Business models, with or without federal or state grants, can be pay-for-service, but can also be unlimited use, such as a town's local streets or a bulk payment arrangement for broadband in an apartment building. Some funds could come from general taxes, some not – whatever works in a locality. Some communities tax broadband – a thing they want – because they are addicted to taxation, unwinding an old approach would be too complicated, or (as is often the case in California, for example) communities have only limited control over property taxation and need the revenue.

I expected that service providers that also own content (such as Comcast, which owns NBC and other networks) would want to see underserved communities served well enough by other service providers to distribute that content. But one big content owner, AT&T, is spinning off its $80 billion purchase of HBO and associated properties by merging them with the Discovery Channel. It gets some cash back but also keeps the content business off its books. We'll see how the dynamics work out.

Many people complain that carriers, especially large carriers, charge too much. That's not entirely true, so huge cuts cannot be expected across the board. My cable provider is cutting rates on customer demand because a well-regarded wireless internet service provider (Starry) moved into the neighborhood. Reading annual reports suggests that telecommunications companies are profitable but not excessively so compared with other industries. Many complain that the FCC's broadband maps, and even the new, improved National Telecommunications and Information Administration broadband maps, are not good enough. But better maps are available from independent vendors, and better maps are also on the way from the FCC, due early in 2022.

The first two rounds of the USDA ReConnect Loan and Grant Program, as detailed in this magazine, have funded mainly fiber systems at a cost per premises passed of between $4,000 and $6,000. That's about what the cost was when Verizon started deploying fiber in 2004. And that's in rural areas, not easy-pickings urban and suburban areas where Verizon started. But ReConnect has funded some great wireless as well.

The bottom line: The industry has a great story to tell. There's an enormous amount of money on the table, with more likely to come with the infrastructure bill. The industry should join to accentuate the upside, trumpet the benefits and stop the infighting. And the funding should indeed be technology-neutral, once a high performance level and a solid growth path are defined. The country needs this. ❖

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