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Rational Broadband Investment: Why the FCC's New Task Force Is a Good Step Forward

Anna-Maria Kovacs, Ph.D., CFA^{1, 2}
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1. Anna-Maria Kovacs is a Visiting Senior Policy Scholar at Georgetown University's Center for Business and Public Policy. She has covered the communications industry for more than three decades as a financial analyst and consultant.

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In an era of scarce capital, the U.S. communications industry is making a remarkable investment in our country's infrastructure. In 2011, wireline, wireless, and cable companies spent a total of \$66 billion on their networks. But while all of that is encouraging, there is still room for improvement. That is why Chairman Genachowski's announcement that the Federal Communications Commission has formed a task force to study the technology transition to broadband and IP is great news. And given that this transition impacts state as well as federal regulation, it is helpful that state regulators via NARUC will have input.

The incumbent telephone companies' traditional voice service has lost more than two-thirds of its subscribers to either wireless or cable-company voice-over-Internet Protocol (VoIP) competitors. Because this is a high-fixed cost business, the cost-per-remaining-subscriber on the old network has increased sharply as subscribers have left plain-old-telephone-service (POTS). Nevertheless, various regulatory requirements make it difficult for the phone companies to stop providing legacy POTS over a circuit-switched TDM network even where they have new IP-based broadband networks.

This is not a small-ticket problem. In 2009, a report by Columbia Institute for Tele-Information called *Broadband in America* estimated that roughly \$10 billion per year would be invested in legacy phone networks each year from 2009 through 2011 by the three largest wireline carriers (CITI, Table 5). That \$30 billion would represent more than 40% of the capital spent by the phone companies in those three years--\$30 billion spent to provide an obsolete service that consumers are abandoning in droves.

Spending capital on archaic TDM-based networks is not a rational investment strategy for the companies and does not help them meet the United States' goal of ubiquitous high-speed IP-based broadband deployment.

That is why AT&T recently announced that it would increase its capital investment by \$14 billion over the next three years, and dedicate that increase to IP-based broadband. But an industry-wide process that redirects capital to broadband is clearly better than a single company's efforts.

A coordinated effort by the FCC to examine the issue of network migration from TDM-based networks to IP-based networks should result in a smoother migration to the IP-based

broadband networks that consumers and businesses need and that Congress and the Administration consider a national priority.

Part of the TDM-to-IP transition process has to be a review of the regulations under which the phone companies provide service, to determine what regulations are necessary in the new IP-broadband world and what regulations can be eliminated because they are either irrelevant or counter-productive. For example, rules for rotary and pulse dialing were an issue in the POTS world, but aren't in the IP world. On the other hand, cybersecurity was much less of an issue in the POTS world than it is in the IP world, where it is critical. Dealing with power outages has to be addressed differently for fiber, wireless, and coax networks than for copper networks, because of the physical characteristics of these media. And—given that most consumers now use either wireless or cable networks—these critical infrastructure concerns are relevant not only to the phone networks, but to all broadband networks.

The FCC's process should help the companies and their regulators understand the issues that will arise during the TDM-to-IP transition. This will help anticipate problems before they can arise on a large scale, thus facilitating a smooth transition to an all-IP world. A clear roadmap, in turn, will incent additional investment in—and redirect the capital to—broadband networks.

It is far too early to know what the new rules will be, but Google's Kansas City (KSC) gigabit-fiber deployment provides one model of rational broadband-infrastructure investment. As has been widely reported, Google obtained various tax, right-of-way and project facilitation benefits from the city. But the most important benefit it obtained was the opportunity to create a business plan that is not constrained by traditional regulations.

By running neighborhood-presubscription contests, Google determined which neighborhoods within KSC had enough demand to cost-justify construction, and it is building only to those. In addition to its primary \$70 per month gigabit-Internet service and \$120 per month gigabit-Internet plus video service, Google is offering a 5/1 mbps service that is free once a \$300 connection charge is paid. It is not building a parallel TDM network to go along with its IP-based broadband. In fact, it is not offering voice service at all, thus avoiding having to comply with even the limited regulations that have been applied to interconnected VoIP.

This is not necessarily—or even probably—the business plan that will work for other broadband infrastructure providers, for whom this is a core business rather than an experiment. AT&T, for one, made it clear when it announced its increased capital investment that it would not abandon any customer who wants to use its service.

But KSC did grasp an essential point—if the city wants an additional provider of broadband to enter a market that already has several broadband services (wireline, cable, and wireless in this case), it has to allow that provider to design a creative business plan that reflects the market realities of consumer demand and established competition. Similarly, if regulators want consumers and businesses to benefit from multiple competing IP-based broadband networks, they must allow all infrastructure providers to operate rational business plans that take into

consideration market demand, the requirements of the technologies they deploy, and competitive conditions.

As FCC Chairman Genachowski has said, broadband is the innovation infrastructure. It is a key engine for economic growth. It is time to reform regulations that force companies to waste billions of dollars each year on obsolete technologies. It is time for rational broadband investment and this task force provides a good first step.