

Testimony of

Mr. Blair Levin

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WRITTEN STATEMENT OF
BLAIR LEVIN, MANAGING DIRECTOR AND TELECOMMUNICATIONS, TECHNOLOGY AND MEDIA
REGULATORY ANALYST

STIFEL NICOLAUS & COMPANY, INCORPORATED

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Chairman Specter, Ranking Member Leahy, and Members of the Committee:

Thank you for inviting me to testify. It is an honor for me to be here.

By way of background, I practiced law for 10 years in North Carolina, largely as a corporate lawyer. Among my principal responsibilities during that time, I served as outside General Counsel to a rural wireless company that raised over \$200 million in equity and debt and grew to service 26 markets. I also worked as a securities lawyer on municipal finance offerings in North Carolina. In 1993, the Chairman of the Federal Communications Commission appointed me Chief of Staff, a position I held for 4 years. After leaving the FCC, I served as a consultant to a number of telecom, media, and Internet related enterprises. In January of 2001, I began my current job as a Wall Street analyst with Legg Mason and now with Stifel Nicolaus, where my primary mission is to evaluate the impact of government policy on telecommunications, tech and media companies for institutional investors.

I understand that the principal reason you have asked me to come before you today is to discuss the impact of "network neutrality" on investment and innovation. This has become a major focus of the investment community and since our first analysis of it in 2002, we have written a number of pieces on the topic for investors.

Network neutrality raises a number of issues beyond investment that I will not touch on but that are important for this Committee and the government as a whole to consider.

I will focus on investment-related issues, not with the thought of prescribing a particular policy but with the hope of providing a perspective that the Committee might find useful in evaluating the issue. I think there are four key points to keep in mind:

- ? First, that regulation is not the sole or even primary driver of investment decisions for network infrastructure;
- ? Second, that the task of public policy ought not to be to maximize investment in one part of an economic value chain but to allow the market, in its variable but still better wisdom, to optimize investment throughout the entire value chain;
- ? Third, the primary threat to the market being able to optimize investment is a non-transitory bottleneck in any critical part of the value chain that restricts economic growth; and
- ? Fourth, the greatest guarantor of the kinds of benefits that network neutrality principles have delivered in the past, and the greatest driver of investment are the same: an opportunity for new, ubiquitous broadband networks.

I will discuss each of these briefly but first want to put the network neutrality debate into the appropriate business and historical context.

The Context for Network Neutrality

Network neutrality presents an old policy problem--whether, and if so how, to regulate a network--but with a new set of facts; an unregulated duopoly of the most important platform for economic growth in the country. It also raises an old business problem: how do various enterprises within a value chain divide revenue from various sources?

In brief, the historical telephone monopoly was a regulated common carrier; cable was allowed to offer video without common carriage regulations (though with some constraints on its programming decisions); and the narrowband Internet, which rode over phone lines, also followed a common carrier model.

With the rise of broadband, the question arose as to the proper regulatory treatment of carriage. Last summer, the government finally clarified that carriage over broadband would basically be unregulated. In addition, last fall, the telephone industry vertically integrated the two largest local phone companies with the two largest Internet backbones.

Over the last few years, the higher returns in what we might think of as the broadband value chain have gone to web-based applications and content providers rather than broadband network owners. From a business perspective, then, the new freedoms and new control over more network assets raises the question of what can the Bells and Cable do to shift value back to the network?

This in turn raises a policy question: should the government put prior constraints on any tactics that the Bells and Cable could do as they try to shift value to the network?

The fundamental question on which I will focus is the impact of such constraints, or the lack of such constraints on investment.

Network Neutrality and the Impact on Investment

1. Regulation is not the sole or even primary driver of investment decisions for network infrastructure.

In listening to the debate on network neutrality, one often hears the view that any regulation will hurt investment in the network. In my view, this is like believing that a piece of a puzzle is the entire puzzle.

That is, while it is true that regulation, looked at in isolation, has a negative impact on investment in the enterprise being regulated, it may not be true when one looks at the whole picture. The decision of whether, and if so, how much to invest in infrastructure involves a complex weighing of a number of factors. Long-time media and telecom investor Robert Gensler of T.Rowe Price summed it up this way: "there are only three reasons telecom carriers spend on capital expenditures: opportunity for profitable growth; fear of competition; and fear of the regulator. There is only one reason telecom carriers don't spend on capital expenditures: fear of investors."

As an historic matter, this is certainly true. For example, incumbent telecom capital expenditures as a percentage of revenues rose after the 1996 Telecom Act in a period when incumbents argued they were subject to significant new regulation, but after they won certain significant deregulation, the percentage declined. In both periods, the level of potential competition and the opportunity created by new investment was certainly a larger factor than regulation.

Another example worth noting would be cable's of capital expenditures. Looking at one piece of the puzzle, one could argue, with some validity, that the Cable Act of 1992 suppressed investment in the cable infrastructure. But looking at the whole puzzle one would see that part of that act, the program access rules, stimulated the rise of the Direct Broadcast Service industry, which in turn stimulated cable to invest in network upgrades to offer improved video service and an offering DBS could not offer: broadband. The rise of cable broadband, far more than any deregulation, was the principal cause of telco investment in network upgrades to offer DSL.

The point is not that all regulation stimulates investment. It is that the opposite, often cited as a reason to oppose network neutrality, is equally untrue.

Moreover, it is a mistake to judge the merits of a policy on the single metric of capital investment in a single industry. And that leads me to my second point.

2. The task of public policy ought not to be to maximize investment in one part of an economic value chain but to allow the market, in its variable but still better wisdom, to optimize investment throughout the entire value chain.

The right goal of a nation's economic policy, as noted by Harvard Professor Michael Porter, is to create a higher and rising standard of living for the nation's citizens. One prerequisite for achieving that goal is investment that drives broad economic growth.

Throughout the economy, companies are competing for investment dollars. The network neutrality debate is a part of that competition. As noted above, network neutrality involves a tug of war between different parts of the broadband value chain. Each part needs the others to deliver the ultimate product to the consumer. But not all parts receive the same return on equity. The greater the scarcity of one part, the more likely it will deliver a premium return to investors.

While some have suggested the government should never be involved in such matters, it is important to remember that government has often intervened in value chain disputes to help jump-start new industries and stimulate competition. To help the fledging cable industry, government imposed regulations on owners of utility poles and mandated compulsory copyrights for broadcast content. To help the Direct Broadcast Satellite industry, government imposed program access rules on cable-affiliated programming, which, as noted above also stimulated broadband investments. To help broadcasters, government imposed must-carry and retransmission consent rules on cable operators. To help wireless, the government limited the wireline companies' ability to change excessive terminating access charges. To help various providers of telecom services, such as the long-distance industry and competitive access providers, constraints were placed on the way incumbent local exchange carriers could price or deny access to certain of their facilities.

Some of these rules worked well, others did not. Some were required at a particular time but over time, outlived their usefulness.

The point is, targeted government action may or may not be warranted in this case but a generalized view that such intervention into a business relationship is always wrong or highly unusual is not historically accurate.

As the above examples illustrate, this network neutrality debate is not the first time the government has been presented the question of whether it needs to adopt certain rules designed to preserve or stimulate economic growth by assuring that providers of new, innovative services and products have an opportunity to get their offerings to the market.

In the case of the broadband market, consider that if the network owner wants to develop a new application or service, nothing stands between it and the customer. Indeed, if the network owner is considering investing in new infrastructure, it has three ways to earn a return on the investment: first, through sale of the basic access services; second, through sale of premium access services; and third, through the sale of its own applications and services that ride over the network.

From the perspective of the investor in applications providers, however, the situation is quite different. Such an investment will only pay off if the application can reach a critical mass of consumers as possible. Obviously, there are significant uncertainties in terms of the costs of developing the application and making it available to the public Internet. But to the extent there is uncertainty about whether a premium will have to be paid to make sure consumers can reach the product, or uncertainty about whether the best efforts Internet will degrade over time, it decreases the probability of the innovation being funded.

The important thing is that from the perspective of investing in Internet applications and content, knowing that such access will continue to be available would be a critical variable in the investment decision. Without some basic guarantee of an improving, not degrading, open lane, investors in Internet applications would be less willing to invest in new applications.

This is no small thing in terms of economic growth for our country. A key driver of such growth in recent years has been ubiquitous productivity tools, such as e-mail, instant messaging, search, and new services such as VoIP and Internet video.

None of the innovations has developed from the enterprises that owned the networks. The reasons for that are complex. This history suggests, however, that to help drive an ever increasing standard of living, we should want to assure that markets are open enough to drive investment at an appropriate level throughout the value chain, not just at one point of the value chain.

And that brings me to my third point.

3. The primary threat to the market being able to optimize investment is a non-transitory bottleneck in any critical part of the value chain that restricts economic growth.

One often hears that government should prevent all bottlenecks but as Professor, and the one-time head of the Antitrust Division of the Justice Department William Baxter, taught, the goal of all competition is to create bottlenecks. Some bottlenecks, such as temporary bottlenecks that can be by-passed by new facilities or competitors, do not need to be addressed by government action.

The goal of public policy should be to assure that bottlenecks do not prevent that rising standard of living I noted earlier. Antitrust experts have identified some potential harms that might be relevant here, such as preventing new entrants from entering through adjacent markets, allowing those with a bottleneck to leverage that bottleneck into a related market, or impeding technology development by concentrating technology leadership into a small cadre of firms so that the entrepreneurial function of technology leadership is stymied.

In the current debate, these types of concerns are raised, principally around the market structure of last-mile wireline broadband facilities. One could have a long, and undoubtedly loud, discussion about whether there is a bottleneck anywhere in the broadband value chain. It is worth noting, however, that even proponents of network neutrality requirements agree that if there were five or more such providers, market forces would reduce the risk of anti-competitive behavior to a level that regulation would not be necessary. On the other hand, that if we had only one firm offering last mile broadband access, there likely would be a broad consensus that network neutrality rules would be necessary, as was true in the narrowband world that relied solely on the telephone network for last-mile access. Thus, the issue comes down to different views about the appropriate rule when we have two, or possibly, three, or four providers.

This helps explain, I think, why wireless is generally excluded from this debate. Wireless companies violate what many think of network neutrality principles. For example, they do not allow any device to attach to their networks and they favor some content. But there is a general sense that the level of competition is sufficient to assure a competitive market for devices and content in wireless; or more specifically, new entrants can enter the market for certain wireless services from adjacent markets, wireless carriers cannot leverage their position to dominate new markets, and there is robust technological entrepreneurship for wireless applications, services and devices. A key indicator of the robust nature of the wireless market is the presence of resale services.

But even if we are only looking at wireline broadband, it is still more complicated than simply picking a number of national broadband competitors which, if reached, trigger an end to rules. First, we have today, and are likely to have for the foreseeable future, differences by geographic markets. While some Americans have access to three or even more broadband providers, some have access to only one, or even none.

Second, there are differences in performance characteristics. We speak of broadband as a single category but there are vast differences in what a high end cable or telco broadband offering can provide and what a lower-end service can offer.

Third, it is a dynamic market. The networks that deliver water or electricity have not changed much over the years but the bit delivery markets have changed dramatically over the past few years, and with video over the internet in its infancy, it is about to change again.

A big question mark, in my view, is when and how large a third ubiquitous broadband network will reach most Americans. If one thought the answer was soon and big, one would logically be less concerned about the need for network neutrality requirements. A new, large broadband facility would make it difficult for incumbents to block new entrants, leverage dominance into new markets, or suppress technological developments.

I happen to think, the answer is not soon and not big but my point is that no one knows for certain. Any analysis of the need for network neutrality inherently involves assumptions about emerging broadband alternatives.

Looking at the problem this way, however, a few things become clear. This is not a problem of a long-term national monopoly regulation; it is a problem of discrete geographic and product markets. It requires a granular analysis of those markets.

For example, assuming the current best efforts Internet is maintained and continues to improve at a reasonable pace, we think there is a relatively small risk of anti-competitive behavior affecting low-bandwidth applications such as email and search. But there is at least the theoretical danger that the current best efforts could, in effect, be degraded by a number of tactics by the incumbents, such as reducing the spectrum used for the best efforts public Internet and moving it to premium or priority access. This would be very problematic for the hypothetical investors contemplating investments in new applications and services that I described previously.

If the government thought there was a risk of such degradation, it could adopt the idea floated by Craig Moffett, another Wall Street analyst. In testimony to the Senate Commerce Committee generally critical of any network neutrality requirements, he suggested requiring a basic access tier for a minimum amount of bandwidth, or a fixed percentage of bandwidth in which pure neutrality would be maintained. Others, such as the Information Technology and Innovation Foundation have made similar proposals for a basic and growing level of open, unmanaged Internet access. The presence of such a safety net may prove a minimally intrusive solution to the risks to the market for low-bandwidth applications.

Market forces may drive such access. Or perhaps there needs to be a simple transparency requirement so that customers know how much of their bandwidth is being devoted to a neutral Internet experience. Certainly, it would be useful for a government agency to monitor trends in this direction.

As to the market for applications that require high bandwidth and low latency, such as online gaming and streaming video, there is a greater risk, though not a certainty, of anti-competitive behavior. This is particularly tricky to evaluate, as it is a new market. Companies entering this market, from both the network side and the applications side, are both uncertain of the right business models and reluctant to reveal their current thinking about the best strategies. While their reluctance is understandable, it also makes policy development more difficult.

As noted before, the government has in the past developed targeted rules to deal with specific problems. I think that doing the granular analysis of the specific risks and, if necessary, evaluating a wide spectrum of potential remedies is the task of expert agencies.

But however the government decides to move forward, I would hope it would all keep in mind the long-term strategy.

And that brings me to my concluding point.

4. The greatest guarantor of the kinds of benefits that network neutrality principles have delivered in the past, and the greatest driver of investment are the same: an opportunity for new, ubiquitous broadband networks.

Ultimately, to serve the goal of stimulating a rising standard of living for Americans, the challenge for government is to assure a broadband environment characterized by survival of the fittest, as selected by the market, rather than survival of the friendliest, as selected by the network owners or government.

We, as a nation, have benefited from the fact that to date in the Internet ecology, we have had such an environment. We should want it to continue.

But the market is now changing in many ways. The debate before the Committee and Congress is about what rules should be imposed on or removed from the existing players, given those changes. Hopefully, the analysis I and others have offered on this panel will be helpful to you and others in formulating answers.

But in closing, I have to say that, from both a public policy and an investment perspective, we need to look at this issue more broadly. As Thomas Friedman makes clear in his brilliant best-seller, "The World is Flat," the United States is competing in a global economy in which our competitors are using the benefits of new, cheap, robust broadband networks to improve their ability to compete. For our policies to lead to rising standards of living in such a world, we too, need to harness what Yale Law Professor Yochai Benkler calls "The Wealth of Networks."

For that to happen, the key policy questions we have to address are those that will drive greater, and I think ultimately, universal, broadband penetration, larger broadband bandwidth, and, as is true in some other countries, much more bandwidth for much less money. While these issues are implicated by some of the legislative proposals currently being debated, they are not at the core of that debate.

Given where we are, it is likely that the only way to drive more, bigger, cheaper, and ubiquitous broadband is through new, probably wireless, broadband facilities. Just as the spectrum auctions of the early 1990's drove a wireless network investment boom later in the decade, and a subsequent boom in various wireless applications, networks, and devices that we are still enjoying the fruits of today, so would new broadband networks drive another round of investment throughout the broadband ecology.

And hopefully, it would also drive market forces to assure that the network neutrality policy debate--like other telecom policy debates in years past which were important in their time but fortunately are no longer relevant--will largely be of interest to historians rather than to legislators.

Thank you very much.

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