

Testimony of Dr. Donald Spicer  
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Good afternoon, I am Dr. Donald Spicer, Associate Vice Chancellor and Chief Information Officer of the University System of Maryland. I am here to speak in favor of HB 1069 and particularly to its intent, which is to preserve a basic principle upon which the Internet was founded and which has been a significant factor in its becoming the vehicle for education, commerce, public engagement, health care, organizational efficiency, entertainment, as well as a platform for innovation.

**Background**

The Internet has its roots in higher education, and in fact was originally a joint project of DARPA and higher education. Thus those of us in higher education have deep experience and particular insights into Internetworking. I have personally been involved in Internet development for over 20 years----which in “Internet time” is a lifetime. I was among the 34 chief information officers from major universities who committed in 1996 to creating the higher education “next generation internet”, Internet2. I have watched the Internet thrive and become ubiquitous, while a variety of vendor-specific networking technologies have disappeared. This phenomenon, I believe, is due to certain underlying principles that have sustained the Internet and were not shared by more proprietary approaches to networking.

- 1) The Internet is vendor independent. To be either a provider or a consumer on the Internet one doesn't need to use the products of a particular vendor, one need only use products that conform to certain standards. Thus there is a level playing field for vendors and ease of access for all Internet users.
- 2) There is an interdependence between content providers and transport carriers. They each depend on the other----no one would be interested in the Internet if there were nothing of value available in terms of services and content; similarly the services and

content would not be accessible if transport carriers didn't provide wide access. It is important that each recognize their mutual interdependence.

3) The Internet is a 'network of networks'. This principle has encouraged the growth of the Internet, which allows extension well beyond the service area of any particular local or regional carrier. Again, every carrier of traffic is interdependent on all other carriers in order to achieve end-to-end access worldwide. As the Internet has grown overall so has its value to all those who support it or are connected to it.

All of this adds up to the basic feature that No One Owns The Internet. Many have a stake in the Internet, its growth and value. However, that value comes from the contribution of a wide variety of stakeholders, and the balance that has developed could easily be destroyed if any single stakeholder group tries to use control of a critical component to try to take over the Internet per se. It is to maintain this balance that I support HB1069. This is an issue that should be resolved at the national level, but in the absence of that and in the face of recent assertions by some local broadband carriers, I believe that it is critical for Maryland to adopt this bill, which assures that abuse of control of the so-called 'last mile' doesn't restrict Internet development or usage in Maryland.

The historical business model of the transport carriers has been that those connected pay for the amount of bandwidth that they need and can afford. But carriers have been just that, and have been neutral in giving preferences relative to what is transported. This has benefited them as the value of the Internet has grown and demand for bandwidth has grown commensurately. This bill speaks to encouraging them to continue that model as opposed to one where they discriminate on transport service level based on their particular business interests. While one might say that companies should be free to do as they wish and depend on the marketplace to decide the viability of their business model, in truth this is an immature market and in most geographic areas there is one, or if one is fortunate, two alternatives for broadband service. This monopoly---or duopoly---does not support open market competition. Content and service suppliers as well as consumers will be limited, and the viability of the Internet in Maryland will be compromised in the

absence of the benefits of HB1069. Opponents of this bill will no doubt also claim that there is no need for legislation since there has been no history of abuse. While it is true that there is little or no such history, it is only because the Internet has operated as I describe above. It is the stated intent to discriminate on the quality of traffic handling over the segments they control that forces this legislation. Since they want to change the rules under which the Internet operates, this legislation is necessary to force them to maintain the historical status quo.

### **What is the University System of Maryland's interest in this bill?**

1) In order to extend access to higher education to Maryland residents and to return tuition dollars back to Maryland from those living outside the state, we offer online distance education. From the point of view of a local broadband carrier, this traffic is not dissimilar to that of Amazon.com or Google. It is important to us, and the state, that we not be hindered from reaching an end-user in an effective manner because their local carrier has a preferred relationship with some other higher education organization or because we do not pay additional fees for them to carry our traffic in an effective manner. In running a worldwide online learning enterprise, such as we do, having to negotiate with every local broadband carrier on the terms under which they might effectively carry our traffic would be unsupportable.

2) In order to improve access to the high quality health care that some of our institutions provide, we offer telemedicine to underserved regions of the state and elsewhere. The ability to effectively do this could similarly be hindered by local broadband providers if they start discriminating based on our unwillingness to pay special local fees or if they start limiting our service due to having a relationship with an alternative supplier.

3) The University System of Maryland collectively has invested substantial resources to develop services to run our institutions effectively and efficiently. Many of these are designed to provide service to those affiliated with our institutions off-campus via the Internet. Again, these transactions may appear to a local broadband carrier as indistinguishable from those of any other large corporate entity and we may become dependent on local carriers to allow us to maintain efficient operation.

4) Funded research is approximately 1/3 of the overall University System of Maryland budget. Not only does it bring resources into Maryland, but, since the economy of Maryland is to a large extent knowledge-based, it is a significant engine to the future economic development of the state. Increasingly research is an anytime/anywhere collaborative activity that is heavily dependent on the Internet. Again, this could be choked by local carriers' plans to give the "fast lane" to services willing to pay more, rather than giving our researchers equal access to the full bandwidth they pay for.

5) We are in the innovation business as well. We have student and small business incubators, technology parks, entrepreneurship residence halls, etc. These start-ups, many of which are based on the research activities going on at our institutions, are vital to the future economy of Maryland. One only needs to recall that one of the founders of Google was a student at the University of Maryland College Park to understand the potential. Other Internet based initiatives are similarly getting started. One has to ask how any of these start-up initiatives will ever get traction if local broadband carriers give preference to larger, more established companies.

For all of these reasons, we feel that we have a stake in this discussion. Higher education broadly, and the University System of Maryland in particular, understands and has nurtured many of the principles that have made the Internet successful to this point. We also understand that the Internet has huge potential for the future---both as regards education and other areas. For a broadband carrier to be able to discriminate because it controls a key component of the whole will not be good for the future of the Internet, for suppliers of content and services on the Internet, for consumers of content and services, or for the state of Maryland. This bill assures that such will not happen.