

Brief Comments re: GN Docket No. 14-28:

Digital transmission has removed the distinction amongst the various types of broadband services. From a transmission point-of-view, they all look exactly the same, ones and zeroes. It is nothing more than a weak political exercise to attempt to differentiate broadband internet service from any of the others. Openness and fairness necessitates that all service providers be treated equally.

Accomplished broadband network managers have long used the analogy of describing the physical mechanics of the broadband transmission medium as a throughput pipe, and water is often used as a substitute for the electron flow, think of the water droplets as the ones and zeroes. This analogy is perfect for this particular discussion.

All of the providers of broadband services have a need to push their information (water) through the pipe. All of the service providers must compete for the available space within the pipe. The service providers are only concerned about their own customers; they have no concern about the customers of their competitors, and, in fact, they might benefit if the customers of their competitors are not able to obtain adequate service. They can make sure this happens if they seize control of the pipe by flooding it with their own information (water). This is quite easy for a very large service provider to do if there is no network manager in control of the pipe transmission throughput, or congestion management.

Professional congestion management requires specific adherence to detailed traffic engineering standards that can only be enforced if the network manager has complete control of the traffic monitoring and enforcement practices. Otherwise, the 500-pound gorilla will use a devastating fire hose to seize the pipe and eliminate others. In a perfect world, the network manager would even have the ability to punish the monster for such behavior.

Additional network practices that would ensure a fair and equitable playing-ground for all potential users of the pipe must include rules about device attachment and security. The 500-pound gorilla cannot attach the fire hose if the network manager has restrictions in place to avoid such a catastrophe. Furthermore, others who wish to use the pipe for the sole purpose of causing trouble must be identified early on and shut down immediately. Professional network managers, and only professional network managers, are fully capable of providing such protection.

In addition, in times of crisis, it is important to have a network manager take full control of the network in order to give priority to emergency services. This is a time when openness and fairness must be abandoned in favor of safety and security.

To think that the broadband network can be sustained for all users without strict network management is pure folly. Even the best-intentioned broadband service providers cannot be expected to consider the best interests of all others as they focus on satisfying their own customers in a highly competitive environment. Only the network manager who has complete control of the network can do so.