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**Unit 4 Assignment**

Of the many recommendations for policy makers and regulators, the Internet Society suggests “Increase Regulatory Flexibility” [1] as one of their key policy proposals. The goal of increasing flexibility is to “better utilize scare spectrum” [1]. Under this, there are three main sections, one being Spectrum Sharing. The Internet Society states that “policy makers should allow and create incentives for spectrum sharing” while “clearly defin[ing] rights and obligations” for spectrum users [1]. They propose spectrum sharing as a method of expanding spectrum use and “utilizing licenses that are not fully built-out” [1].

To analyze the policy proposed by the Internet Society, three factors of availability, cost, and public benefit can be used in order to determine the efficacy of the proposal.

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| **Availability of Spectrum** | Increased availability to rural unserved or underserved areas |
| **Cost of Spectrum** | Reduction in cost of regulatory and licensing fees |
| **Benefits to Public** | Less idle spectrum  Increased availability and reduction of fees |

With spectrum sharing, the availability of spectrum is increased greatly, as idle or un-built licenses can be used by many users. Citizen Connect provides a great example of the increase in spectrum availability that can be provided through spectrum sharing. Citizen Connect has “successfully connected large portions of northern Namibia” [1] allowing for connectivity throughout the population. This is also a benefit to the public as it allows for areas without connectivity to access idle spectrum without increased cost. Another example of increased availability and public benefit is the Malawi TVWS Pilot Network, which connected rural hospitals and schools. Connecting rural hospitals and schools allows for betterment of education and service while also connecting rural areas to the outside world. The project also stated that “the results showed the TVWS in the UHF band demonstrated 2.6 times better data rates than other fixed broadband services” [1] which reduces cost of spectrum for users.

Shared spectrum also allows for prioritization of users. Government use of spectrum is prioritized, but other users can have access to the spectrum when it remains idle. This helps reduce the issue of scarce spectrum, freeing up unused spectrum for public use. Shared spectrum also allowed for introduction of new services as well as testing of these services amongst many users. Increasing connectivity also allows for further closure of the digital divide. Overall, the Internet Society’s proposal of shared spectrum would increase availability of scarce spectrum, reduce costs in regulatory and licensing fees, and benefit the public through increased connectivity and lower cost.

[1] “Policy Brief: Spectrum Approaches for Community Networks.” Internet Society, Oct-2017.