

RE: FCC Docket 09-51

The Problem

The deployment of broadband is a chicken and egg situation in that high user access costs limit demand that in turn discourages digital infrastructure roll-out. If this were not the case, the FCC would not see unsatisfied demands for broadband access. This occurs both at lower and higher data speeds. With time, lower-speed users should be expected to want higher speeds, if the price is reasonable. If the FCC objective is to achieve ubiquitous higher speed penetration it should start with a lower speed, lower cost infrastructure, and allow demand to increase speeds, with real competition to keep prices down.

A Basic Solution

To establish the low speed infrastructure, The FCC can re-define basic telephone and basic cable services to include ADSL at a fractional monthly increase in basic service cost. In my area, these run at about \$10/mo. The addition of ADSL could make this \$15/mo. Congress could provide a one-time subsidy for operators' installation costs not amortized by the incremental monthly fee. This redefinition is historically consistent if not essential, having left the analog age of the 19th and 20th Centuries, and demanding we must now have a pervasive digital communication network. New and improved services and economies enabled even by such a basic digital network have an economic and social potential that should easily exceed its cost.

An Expanded Solution

Briefly:

1. FOTS is the ultimate BB network, but has coverage issues, and no high speed competition
2. Cable has good penetration in urban areas but high-speed limitations, spotty competition
3. Fixed radio systems can provide high speed competition; P-MP on an area basis
4. P-MP fixed systems can compete with each other in an area with site "head-end" separation
5. E-band can handle high speed and could be dedicated to BB infrastructure
6. E-band is subject to rain outages. FOTs and cable are subject to cable breaks
7. Low speed resides on legacy systems (ADSL/Cable), low or high speed on FOTS or E-band
8. Subscription to ADSL/Cable/FOTS/Radio alone or in combination or as needed for reliability, cost or speed requirements
9. Pairing E-band with other system or lower frequency system yields fail-soft rain outages or cable breaks, if desired
10. Require inter-system home/office station compatibility for system/operator change
11. Consider E-band cost based on set-up plus actual traffic use. (Back-up/low use incentive)

12. Design burst radio link transmission (no traffic, no transmission) to increase system capacity
13. Suggest high BB target such as 45 Mb/s.
14. Provide rural/low density using same principles, lower frequency bands and lower speeds

And institutionally:

15. BB infrastructure needs integrated planning, design and implementation to methodically ensure national goals, but in an unregulated environment. (Ma Bell is dead).
16. An industry organization is needed such as RTCA who play an important role in aviation as a Federal Advisory Committee for the FAA. For ease, let's call this the BBFAC.
17. Infrastructure design should encourage multiple operators, competition and local entrepreneurs. To satisfy the broader goals of the FCC it should be technically homogenous to ensure a high standard of service, low price equipment through standards and scale, and easy transfer of service from one operator to another, so competition is based on price and service, rather than captive technology and spectrum (the sorry state of affairs in cellular radio).

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