

**Before the  
Federal Communications Commission Washington,  
D.C. 20554**

In the Matter of Connect	)	
	)	
America Fund	)	WC Docket No. 10-90
	)	
ETC Annual Reports and Certifications	)	WC Docket No. 14-58
	)	
Rural Broadband Experiments	)	WC Docket No. 14-259
	)	

**Reply Comments  
Of  
Bloosurf, LLC.**

Bloosurf, LLC., hereby submits these reply comments in the above-cited proceeding.

1) In Comments of ViaSat, INC., dated July 21st 2016, ViaSat wrote: “Furthermore, satellite providers that use existing infrastructure to provide service to areas deemed “unserved” by the Commission would incur significant opportunity costs— particularly given the long-term obligations associated with acceptance of CAF support. Notably, satellite providers typically have a variety of options with respect to the use of the finite throughput available over a given satellite. The mere existence of satellite beam coverage of a given area does not mean that satellite capacity will be available in that area for CAF-related purposes—capacity often is already committed for other business purposes, or is redeployed as appropriate to serve new business needs. By committing capacity for CAF purposes, a satellite provider necessarily would forego the ability to use that capacity elsewhere—including for other applications—at significant opportunity cost.”

In FCC 16-64, CAF Phase II Competitive Auction Order and FNPRM, paragraph 4, the Commission stated: “The Commission provided for up to \$1.8 billion to be spent annually to make broadband-capable infrastructure available to as many unserved locations as possible within areas served by price cap carriers, while sustaining voice and broadband-capable infrastructure in high-cost areas that would not be served absent support.” Surely it is not the best use of Universal Service Funds to subsidize the deployment of infrastructure that is already funded, or to subsidize what has been characterized as lost opportunity costs.

If ViaSat is able to capture market share to fully use the capacity of their satellite-based network, which appears to be affirmed based on the statement that “satellite providers typically have a variety of options with respect to the use of the finite throughput available over a given satellite”, why are support payments justified when the support payments are oriented to locations that are not economic for private investment? Furthermore, the Commission has been very clear that, in the case of the public interest, the finite budget and the FCC objective to target support to areas that are unserved: "the Bureau shall determine which census blocks are served by unsubsidized

competitors according to certified Form 477 data and thus ineligible for the Phase II competitive bidding” (see paragraph 72, FCC 16-64 CAF Phase II Competitive Auction Order and FNPRM). We are very concerned about the Commission’s willingness to accept high latency voice services.

2) In Comments of Hughes Network Systems, LLC, dated July, 21st 2016, Hughes Net wrote: “Later this year, Hughes will launch a second next-generation broadband satellite, Jupiter 2, which will provide advanced satellite broadband coverage across the United States, increase the speeds that Hughes is able to offer to [sic] upwards of 25 Mbps and beyond, and increase the Hughes’s capacity to provide service to customers.”

It appears that Hughes and ViaSat are requesting CAF II support to reserve capacity on their satellite-based broadband networks for systems that are already deployed or pending deployment. In paragraph 80 of the May 26, 2016 Competitive Auction Order and FNPRM, 16-64, the Commission referenced USF/ICC Transformation FNPRM, paragraph 1195, stating that the Commission's “objective is to distribute the funds it has available for price cap areas where the incumbent ETC declines to make a state-level commitment in such a way as to bring advanced services to as many consumers as possible in areas where there is no economic business case for the private sector to do so.” Recognizing that these systems have been deployed or are pending deployment, the inference is that an economic business case for the private sector has been established for these satellite-based broadband systems. This is further affirmed with the statement by ViaSat that committing capacity for CAF purposes “would forego the ability to use that capacity elsewhere—including for other applications—at significant opportunity cost.”

Of additional concern should be the issues of voice quality and reliability when voice is provided over broadband networks that have high latency and known service outages several times each year.

3) In Comments of the Wireless Internet Service Providers Association, dated July 21st 2016, WISPA suggests “Percentage Credits” as a weighting mechanism. The basic premise behind this approach is valid, a weighting formula based on percentages rather than additive values will yield more accurate results based simply on the fact that differences between performance tiers are logarithmic, not linear, and a weighting paradigm that uses multipliers rather than addition would better represent differences between performance tiers.

A multiplier would also work best as a weighting factor for latency as the difference between low latency systems and high latency systems as defined by the Commission which, for all practical purposes, boils down to terrestrial systems vs. non-terrestrial systems. The difference between at or below 100ms and at or below 750ms, a factor of over 7 times, should also be treated as a logarithmic or non-linear difference and weighted accordingly. The Wireless Internet Service Provider association suggested a “Percentage Credit” for high latency bids of -75, and while we agree with the percentage approach, we suggest a percentage of -100 for high latency bids to ensure that as long as there is a low latency bid at or below the reserve price, that bid should prevail over a bid relying on a non-terrestrial, high latency service delivery platform.

4) In Comments of the Rural Wireless Association, Inc., dated July 21st 2016, the RWA states: “RWA believes that additional information is necessary regarding the methodology that will be used to test latency, as testing methodology will determine what sort of commitment bidders can make as to latency levels.” We agree that additional information regarding latency testing methodology would be helpful to ensure compliance. The RWA also stated: “Given that the lower latency standard serves as the bid floor, no weight should be assigned to bids committing to high latency. Lower latency bids should receive a modest weight that recognizes the benefit low latency provides, but that does not otherwise exclude competitive bids.” While we agree with the basic paradigm that low latency bids should effectively be weighted more favorably than high latency bids, we feel that weighting should be more than “modest” and that low latency bids should be weighted such that those bids prevail over a high latency bid in the same performance tier regardless the bid amount as long as it is below the reserve price.

5) In Comments of Hughes Network Systems, LLC, dated July, 21st 2016, Hughes Net proposed the following weighting structure, “Hughes proposes to weight bids in each tier above the minimum tier by 10 percent of the subsidy amount per unit bid, or less. In other words, bids in the baseline tier would receive a 10 percent bidding credit; bids in the above-baseline tier would receive a 20 percent bidding credit; and bids in the gigabit tier would receive a 30 percent credit.”

While we agree with the concept that tiers should be weighted based on a percentage of the bid amount, and not a value added, we strongly disagree with Hughes Net regarding the percentages themselves, but are not surprised by the percentages or values proposed by a satellite provider. Hughes proposes a weight for the gigabit tier that is three times greater than the baseline tier, while the performance difference between tiers has a factor of 40. We are not necessarily suggesting a percentage based weighting scheme that directly correlates to the tier’s speed, but we are suggesting a weighting scheme that does more closely scale to the actual performance differences between tiers. We concur with suggestions of incremental weighting of 100 between the Minimum, Baseline and Above-baseline tiers (corresponding to weights of 0, 100 and 200).

In Hughes Net’s comments they state, “The Commission should take the same approach in applying weights for latency. That is, bids in the high latency category should receive no bidding credit, and bids in the low latency category should receive a 10 percent credit off of the amount bid.” We’re certain Hughes Net would very much like to see the penalty for a network having 750ms latency be limited to ten percent, however it is clearly not in the public interest to spend Universal Service Funds on high latency satellite networks when any other low latency network is available and can be built with the allocated CAF funding. CAF Phase II funded networks could, based on the FCC regulations become the primary voice networks for entire regions, and possibly someday carrier of last resort networks. Clearly a weighting of only ten percent for a latency that be up to 750ms, an amount shown to cause dissatisfaction with voice calls, is completely inappropriate. We therefore suggest a weighting of 100 for low latency.

Paul Carliner, CEO

A handwritten signature in black ink, appearing to read 'P. Carliner', with a long horizontal flourish extending to the right.