
Broadband Alliance *of Mendocino County*

Date: March 18, 2013

To: Tom Glegola, Ana Maria Johnson, CPUC CASF Staff

CC: Michael B. Pierce, CPUC Communications Division

Connie Stewart, Redwood Coast Connect Broadband Consortium

Subject: Letter of Concern regarding ViaSat Exede Satellite CASF Application

From: Jim Moorehead, Greg Jirak, Trish Steel

Dear CASF Staff,

This is a letter of concern in regards to the CASF grant application for ViaSat Exede Satellite service. While we recognize the importance of satellite in providing broadband coverage to those areas that might otherwise have no other options, there are also important issues that need to be addressed that relate to this service. In particular these concerns are: access, truth in advertising, latency, reliability, and affordability.

The Broadband Alliance has multiple members who are customers of ViaSat Exede Satellite service, and ALL of them have problems with their service. We believe that these stories are representative of a much wider population of satellite subscribers and are therefore not isolated cases, and illustrate clearly the issues mentioned above. The Alliance does not consider current satellite technology - even with the recent satellite upgrades - as a sound solution to the broadband equation.

Access and Truth in Advertising and Issues

Satellite technology has been pitched frequently to many regulatory and legislative bodies as a catch-all solution for rural America. In fact, this sales pitch is far from the truth. Access to the satellite requires an unobstructed, line-of-sight view of the south-east horizon. Counties like Mendocino, with our coastal mountains and giant redwood trees do not fare well with satellite technology. The reality for many residents in Mendocino County is that they can't access this "catch-all solution" because they simply can't see the satellite.

Jim was able to subscribe to the ViaSat Exede Satellite service in February of 2012. At that time the advertised speeds (12 Mbps down, 3 up) were above the CPUC current definition of broadband (6 Mbps down, 1.5 up). Because of the dense forest in Jim's neighborhood, he had to spend extra money on labor and a wireless bridge to remotely mount the satellite antenna. (If he owned a smaller parcel, he wouldn't be able to get satellite service without some sort of agreement with a neighbor.) For the first few months, the service performed as advertised, sometimes even better. He routinely experienced 15 Mbps or better down and 2 Mbps upload. However, as the year progressed ViaSat continued to add customers to the satellite and eventually the system thru-put became overloaded. Consequently, the performance of ViaSat

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Exede Satellite has declined month over month. Now, a year later, performance is well below their advertised speeds and no longer meets the CPUC definition of broadband (6 Mbps down and 1.5 Mbps up). To make matters worse, even though Jim is no longer receiving the service that he signed up for, he is still obligated by a two-year contract and has to pay a full monthly price for an advertised service level that is never met. Unfortunately, there is no recourse available to the consumer when a satellite service provider fails to live up to its advertised speeds.

Inflated performance numbers are a common practice in the satellite industry and they do not represent what our membership has experienced first-hand. We strongly encourage the CASF staff to take this into account when considering any proposal brought forth by a satellite service provider.

Latency and Reliability

Trish signed up for ViaSat Exede Satellite Internet services in August of 2012. As a single mother of a teen-ager and working two part time jobs, the monthly premium is financially challenging but internet connectivity is essential for her job and also for her son's continued high achievement in high school. Trish works part time from home, but is unable to access the office computers from her home due to the packet latency inherent in satellite technology. Instead she has to drive the 60 miles one-way to her office in Ukiah for certain work projects.

Greg limps along with a cellular Mifi service, and uses a satellite service as backup because the Mifi service goes out frequently. Unfortunately, the ViaSat Exede Satellite service is not much of a backup because it often goes out along with the Mifi - dense fog and coastal storms tend to bollix them both at the same time. Greg doesn't use the satellite connection as his primary connection because the latency makes it difficult for him to get his job done. Indeed, even web browsing can be painful, due to the steady chatter of tracking cookies and other web page marketing support. For Greg, satellite service is often a deflated life vest.

The latency issue alone makes satellite technology unreliable for use in many business and telecommuting applications. For many rural residents, telecommuting is a necessity of life due to the large distances to work. These people need a broadband solution which will allow them to work and pay the bills - satellite does not fit that bill as the cases above demonstrate.

Data Caps and Affordability

Many students in our County have interests in areas like video production, web development, and music. For school projects, students frequently have to access video presentations on the web, create and upload term papers with embedded YouTube references, and take final exams online. All of those activities are easy for students who live in the city and have broadband access via cable or DSL. However, those rural students whose broadband is delivered via satellite suffer under strict data caps which block data intensive activities.

Trish is in such a situation. Her son Evan has a passionate interest in video production/music, plans to pursue a career in that field, and so often integrates his talents into his schoolwork at Laytonville High School. He produces video presentations with original music, but because of the data caps he must do such school work between midnight and 5 am when the data caps do

not apply. They routinely exceed their data limit (they used their first month's allowance in 24 hours), but Trish is unable to afford to pay the extra costs each month to purchase more allowance, typically priced at rates over ten times those found in urban areas. Current data shows that teen-agers really do require eight hours of sleep, so his routine staying up at night to do his video editing is worrisome to his mom, and has an impact on his day. His entire school/sleep schedule is thrown out of whack when he is working on such projects.

This link displays a sample of Evan's work: <http://www.youtube.com/watch?v=-hHFwwHrlsc>

Satellite users pay a high price for their service, get locked into a multi-year contract, and feel extremely restricted in what they can do with such service because of these data caps which are not usually an issue for other types of internet connectivity.

Again, we recognize the importance of satellite service for those areas where there are simply no other alternatives and as a stop-gap measure while land based infrastructure is being build out. However, to consider satellite technology as an end solution and to spend critical funds on satellite services at the expense of building a truly sustainable broadband infrastructure is not something that we can support. The CASF funds need to support a plan for an infrastructure which can support future growth to provide for the broadband needs for all - not just those who have a good view of the southern horizon. We urge the CASF to consider seriously the true cost impacts of satellite broadband technology: costs that disadvantage students living in rural counties.

We the undersigned members of the Broadband Alliance of Mendocino County do not recommend approval of the Exede ViaSat CASF application because, based on our experience it does not meet the minimum standards of CPUC broadband definitions. Further, in CPUC Decision 12-02-015 February 1, 2012, *3.3 Definition of Unserved Areas**, satellite is not considered broadband

Thank you for your consideration.

Jim Moorehead, Broadband Alliance Chairman, Mendocino

Greg Jirak, Broadband Alliance Strategic Chair, Point Arena

Trish Steel, Broadband Alliance Administrative Coordinator, Laytonville

* 3.3. Definition of Unserved Areas

http://docs.cpuc.ca.gov/WORD_PDF/FINAL_DECISION/159265.PDF

We will modify the definition of an unserved area as previously adopted in D.07-12-054 as an area that is not served by any form of wireline or wireless facilities-based broadband,⁸ such that Internet connectivity is available only through dial-up service. In Resolution T-17143, satellite service was included in the definition of unserved

areas, putting it on the same footing as dial-up service.

At that time, we determined that satellite based broadband was more akin to dial-up than to the 3/1 minimum level of service that the Commission wanted to see deployed. The January 2008 California Broadband Task Force CBTF report data showed that broadband downstream speed for satellite ranged from 512 through 2 mbps. Other factors that the Commission considered at that time included the cost to consumers to access satellite service, and the unpredictability of the service.

While there has been some improvement in satellite service, the costs to the consumer still ranges from \$60 to \$90 per month (depending on service options and speed plus the cost of the equipment, and in some cases, an activation fee of about \$100); has high latency⁹ problems; is unreliable (drop-outs are common during travel, inclement weather, and during sunspot activity); requires precise equipment positioning, (the narrow-beam highly directional antenna must be accurately pointed to the satellite orbiting overhead); and uses very large and heavy equipment.