Florida Virtual School's Comments
Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of   )
)
Comments   )   GN Docket Nos. 09-51,
)   CC Docket No. 02-6;
)   FCC 10-83

Comments of Florida Virtual School

Florida Virtual School ("FLVS") herby submits its comments in the above-captioned matter.

Introduction

The FCC sought comment on whether providing E-rate funds for wireless Internet access to portable devices in offsite locations would result in increased demand for wireless connectivity in the E-rate program, and how it would affect other programs given an overall funding cap. FCC sought comment on how funding for wireless connectivity might increase over the next several years. The comments will help inform interim funding in 2011 and potential rules 2011.

Mobile Trends in Education

Florida Virtual School (FLVS) has looked at trends and research related to the growth of wireless connectivity related to our own mobile strategy, and, based on this, feels the FCC can certainly expect a significant increase in funding requests over the next few years for wireless devices.

To help put this in perspective, FLVS expects to reach all students' mobile devices within 5 years. This year we expect 285,600 enrollments, and, based on past trends, our enrollment numbers grow about 30% each year. With the increased demand for online learning, mobile access will become more prevalent. We are deploying mobile applications to supplement our online courses, so many of these enrollments will be going mobile for parts of their virtual schooling. Given this, not only must traditional brick-and-mortar schools be considered for additional funding, but online schools eligible for e-rate—and which can be expected to have an even higher percentage of wireless users-- need to be considered in their calculations.

When considering mobile devices, the first thing that comes to mind is a mobile phone—and those certainly are the most widespread mobile devices in use today. But there are other devices that are considered "mobile devices" and these include: Mobile computers/pads/tablets (i.e.: iPad), Personal digital assistant, handheld game consoles (Sony PSP), Portable media players, and e-book readers (i.e.: Kindle). Most, if not all of these devices require some form of wireless connectivity.

Florida Virtual School has based its mobile content decisions on research into mobile device use and educational use of mobile content. The research we have found to back up the growth of wireless connectivity within the US and, more specifically, within the educational market follows:

Morgan Stanley's 2009 Mobile Internet Report provides insight into the incredible growth of cellular devices. Among their findings:
- The mobile Internet is growing faster and will be bigger than the desktop Internet did due to five converging technologies and social adoption trends: 3G, social networking, video, VoIP and impressive mobile devices.

- Use of the mobile Internet is driving mobile device growth exponentially faster that any previous computing technology. Mobile Internet devices (MID's) could reach 10 billion units in 2010.

- They're both opportunities and risks as mobile changes infrastructure, platforms and applications. Consumer hunger for wireless data and content is causing major concerns among mobile operators worldwide. Facebook is becoming a desktop and mobile "hub." Demand for new mobile games or services, like Pandora Internet Radio, rise when consumers have 24X7 mobile wireless access, especially as 4G wireless broadband networks quickly deliver mobile content.

- Apple's control of its hardware, software, content distribution (through iTunes) and its range of devices–iPhone, iTouch, Mac, iPod and iPad – has the company poised to achieve even higher positioning with the mobile Internet.

- More users will connect to the Internet with wireless devices than desktop PC's within five years. This is not hard to fathom if you include billions of e-reading and other wireless devices released daily by companies.

- 3G subscriber penetration exceeds 20% in 2010 (the "sweet spot") and grows to over 40% by 2014, concentrated in developed nations. U.S. has overtaken Japan in 3G user base. While 3G growth is substantial, other wireless technologies–GPS, Wi-Fi and Bluetooth–are growing at the same rate or faster than 3G.

- Social Media. Facebook user base has risen to 430 million year-over-year, roughly the same increase as QQ in China. Twitter, while sporting only 58 million users experienced a 1238% year-over-year growth rate. Facebook now dominates in chat, messaging, video sharing, games, VoIP and more.

- While consumers have preferred desktop video delivery, mobile usage will likely follow, as YouTube, Hulu and other Internet streaming devices, such as the Roku Video Player deliver video on increasingly faster wired and wireless networks.

- Incredible stat. "If VoIP leader Skype were a carrier, it would be the largest carrier in the world with 521 million registered users."
- Mobile phones are now all about data as voice usage drops: 70% voice for an average cell phone, 45% voice for the iPhone. This is true in most developed nations, including Japan, where voice traffic is declining 2% a year. Web browsing on the mobile Internet is highly bandwidth intensive.
- Advertising and eCommerce have dominated the desktop Internet, while user-paid premium content is driving the mobile Internet. $37 billion was spent in 2008 for digital content (wallpaper, ringtones, downloadable games, music, video).

Some additional statistics of note that come from a 2009 report from the Pew Research Center's Internet & American Life Project include:

- Some 75% of American teens ages 12-17 have a cell phone. Since 2004, age has consistently been one of the most important factors in predicting cell phone use. Younger teens, particularly 12 year olds, are less likely than other teens to have a cell phone.
- Cell phones are nearly ubiquitous in the lives of teens today, with ownership cutting across demographic groups. Beyond age, there are few differences in cell phone ownership between groups of teens. Boys and girls are just as likely to have a phone, though they do not always use it in the same way. There are no differences by race or ethnicity in phone ownership by teens.

Many schools and school districts have been experimenting with a variety of mobile initiatives for several years now. These programs have varied in size and scope. A sample of some programs include:

- Florida Virtual School has deployed 7 mobile products for Smart Phones to support algebra, pre-algebra, AP microeconomics, Spanish, and other courses. We are making this a part of normal course production, with a

minimum of 20 products being deployed for mobile learning in 2010-11. We are also reaching out to iPad users with modifications to these applications. In addition, FLVS is supporting the iTunesU initiative in the state of Florida by deploying educational content for students through the Florida site.

- According to the Kenosha Unified School District's web site, KUSD is dedicated to supporting all users and all devices. KUSD.edu is now available via your mobile device. If you have a Web enabled mobile phone or PDA, you can now access www.kusd.edu for special news, closing, and district related information." Other school districts around the country have initiated similar programs.

- The April 2010 online issue of The Innovative Educator (http://theinnovativeeducator.blogspot.com) contains a series of blog entries on how mobile devices can be used for education. Among the topics are:
    - Innovative Ideas for Using Cell Phones for Homework and Practice
    - iPads? Eh! Social Reading from Your Phone? Now That's Innovation!
    - Using Cell Phones to Prepare for Standardized Science Tests
    - Innovative Ideas for Using Cell Phones to Summarize and Take Notes
    Innovative Ways to Engage Learners with Cell Phones Using Research-Based Strategies

- Several school districts have secured grants to purchase and distribute cell phones to students. The number of grants awarded for schools and districts using mobile technology is certain to rise.

- According to a recent IDC Forecast and Analysis report on Worldwide mobile operating system for 2009-2013, Google's Android Mobile OS is going to reach 68 million units making it the second most popular Smart Phone operating system Worldwide, behind Nokia's Symbian by 2013. This growth pattern would also make it the largest Smart Phone platform

in the Untied States. The report notes that Android OS is going to see a compound annual growth rate of 150.4% between 2008 and 2013. Apple's iPhone will also continue to grow and increase market share.

- That being said, Roger Entner, Senior Vice President, Research and Insights, Telecom Practice states: "We are just at the beginning of a new wireless era where Smart Phones will become the standard device consumers will use to connect to friends, the internet and the world at large. The share of Smart Phones as a proportion of overall device sales has increased to 29% for phone purchasers in the last six months and 45% of respondents to a Nielsen survey indicated that their next device will be a Smart Phone. If we combine these intentional data points with falling prices and increasing capabilities of these devices along with a explosion of applications for devices, we are seeing the beginning of a groundswell. This increase will be so rapid, that by the end of 2011, Nielsen expects more Smart Phones in the U.S. market than feature phones." By 2013, the worldwide shipment of Smart Phones is estimated to be more than 390 million units.

Broadband Implications

We applaud the FCC for considering expanding the eligibility to include certain types of home connections. The current program has been constructed to provide discounts only to school buildings that serve students. In the case of a virtual school, the "building" ranges from participating schools to the homes of students and teachers. However, the cost of these broadband services is ineligible under the current program rules. So while the total telecommunications and ISP costs to support FLVS were more than $53 million in the 2008-09 school year, the E-rate reimbursement was only $5,237. In other words, while FLVS's entire instructional model is built around broadband, the E-rate only reimbursed 0.01% of the total broadband and telecommunication costs incurred by students, teachers, and the school.

FLVS strongly supports the FCC explicitly expanding eligibility to broadband costs associated with delivering instructional services to students regardless of where the student is located, even if it is a home. The definition of a classroom in the 21st century is much more far-reaching, and a student's mobile device will be a "classroom" no matter where they are accessing their education due to movement into the mobile space by virtual schools. Florida Virtual School is quickly moving into mobile education, and our students will soon take their classroom with them wherever they go.

We suggest that you consider allocation based on specific uses of the mobile broadband. Prioritization could be based on a mobile similar to the following:

> Priority 1: Virtual schools that service students learning at home;
> Priority 2: Students who take one or two online courses or tutoring;
> Priority 3: Students who may not be taking online courses but need online access to mobile education resources outside school.

Respectfully submitted,

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On behalf of Florida Virtual School