To: Ms. Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Subject: E-rate and Broadband initiatives

Date: November 18th, 2009

My name is Jerry Steinberg, the lead consultant of Telesolutions Consultants, LLC, an independent E-rate and telecommunications consulting firm based in Bloomingdale, Illinois (*30 miles west of Chicago*).

I am responding to the request for comments and experiences with K-12 school districts, in using the E-rate program to advance access to the Internet and improve education.

We are a four person consulting firm that helps ninety-five school districts in managing their E-rate program. All of our school districts have benefited from the E-rate program in being able to better access the Internet, communicate within the schools, communicate with parents, and to connect buildings together in a school district.

We have been working with the E-rate program since its inception in 1997, as a part of the Telecommunications Act in 1996. Just as we have seen major changes in the E-rate program process from 1997 to the present, e.g. moving form a completely paper-based and manual operation to a nearly all digital and Internet-based operation; we have also seen the improvements brought about directly as a result of E-rate funding.

As an example I have seen schools, with no Internet access or connections, now having Fiber Optic Access and they now have ability to download CNN, You Tube, or streaming video, which enhances the classroom experience and improves grades.

We work with rural or urban, large or small, and rich or poor school districts. The E-rate program has been a great equalizer in providing high speed access to the classroom and facilitating better grades and classroom experiences.

Our poorer school district in the middle of the agriculture (*cotton and fruit fields*) in California has the same opportunity to afford high speed Fiber Optics access and the necessary Routers and Switches as some of my richer clients in the North Shore communities of Chicago.

The Need for More Speed

One topic is constant in my discussions with our school districts: There is a continued need for increased bandwidth as the Internet and number of websites and web-based applications have skyrocketed.

As one example of this, I had a meeting with a client this morning who said, "most of my teachers and I have higher speed broadband access (*the telephone company or cable company*) at home then what is being shared by thousands of kids and teachers in our school district".

Newer teachers have been using the Internet since its inception and video clips or streaming video are a huge part of their educational experience at home and in colleges and there are many websites, e.g. You Tube or CNN or the Discovery Channel – with multi-media channels that cannot be accessed in their schools due to lack of bandwidth. In most cases the Technology Managers are restricting access to the video types of services to preserve access to E-mail and lower bandwidth text based applications.

I read a recent report that the United States lags behind most industrialized countries in its bandwidth availability and is ranked just below Estonia.

http://www.ideal-group.org/business_benefits_final/International_bandwidth.htm

We Advocate an Increase in E-rate Funding

The dollar amount set in 1997 was 2.25 billion dollars. The level thirteen years later is still the same. A lot has happened in between 1997 and 2009.

Look at the expansion and explosion of websites, video services, DSL and Broadband Services Initiatives, and faster access in data, both in and out, of buildings. In 1997 the average internal school wiring was at about 10-megabits per second, Today internal networks are at a Gigabit (*1,000-megabits*) standard and most Local Area Network switch manufacturers are deploying and selling 10 Gigabit per second LAN switches.

The average Internet Access bandwidth of my ninety five clients is roughly 9-megabits per second to support on average 3,500 students. It is akin to having a super highway internally (at a Gigabit per second) accessing a dirt road to the Internet..

There needs to be more capacity and Internet access and more funding available to support it.

What could the effect of 4 billion dollars (roughly a 78% increase) a year be?

I believe it would be transforming.

It would allow schools to afford more Internet Access to support newer web based applications and would allow the poorer schools to increase their internal infrastructure.

A ROI or Return on Investment

This is a real “field of dreams” type scenario, as I have seen numerous school districts open up the Information Highway and fill the pipe with pent-up demand for “United Streaming” or You Tube or Discovery Channel or other video and website applications that they never could have been able to access before.

By providing access to the Internet we build an informed, digitally linked and educated community. Not having Internet Access contributes to communities being isolated and poorer educationally. We have also seen a trend of kids going away to college and not returning to their communities due to a lack of technology e.g. access to modems and not higher speed broadband access.

Bandwidth starts with our schools and needs to be available also to our communities to continue providing world class education.

Rural versus Urban America

There definitely is a digital divide between the school districts in rural America. One of my school districts told me that, by their implementing new Fiber Optics, it would allow their 5 connections of T-1 lines (*1.544-megabits*) from the phone company to be available for five other local business – who could not access the Internet presently due to lack of "Telco" facilities.

Another rural school district desperately needs bandwidth, but cannot afford their small percentage of E-rate subsidizing discount (*27% - in their case*) as they are in a huge budget deficit/crunch.

Additional money for E-rate could be a tremendous benefit to rural America – to provide increased access and to help subsidize expensive link and facilities as it costs far more today for Telcos and Cable providers to implement Fiber Optics to more sparsely or less dense areas.

Conclusions

The e-rate program was established in 1997 to provide access to the Internet and that has been a huge success. The program needs to move to another level and more access to bandwidth and services needs to be incorporated with a direct result in improved educational scores, improvements and advancements. We believe increasing E-rate funding is overdue and would result in a tremendous return on investment in our educational infrastructure.

I appreciate this forum for my comments and views. Please feel free to call or E-mail with any comments or questions.

Very sincerely,

Jerry

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