

May 21, 2014

Ms. Marlene H. Dortch
Secretary
Federal Communication Commission
445 12th Street SW
Washington, DC 20554

Re: Notice of *Ex Parte* Communication, WC Docket No. 13-184

Dear Ms. Dortch:

On December 20, 2013, Phil Emer, Director of Technology Planning and Policy at The Friday Institute for Educational Innovation at North Carolina State University (NCSU) spoke via telephone with Dania Ayoubi, Mark Walker, Soumitra Das, and Lisa Hone of the Wireline Competition Bureau (collectively, FCC staff). The following topics were discussed.

FCC staff expressed an interest in learning more about local area network (LAN) and WiFi deployments in schools as well as getting data on the associated costs and pricing. Mr. Emer explained that he has been working at NCSU to build budget models that estimate the costs of network deployment within schools, and that are capable of estimating costs on either a per classroom or per user basis. Mr. Emer expressed his willingness to share such models with FCC staff, as well as any further analysis on actual cost data. The attached document includes specific cost data from Mooresville and Edgecombe County Schools.

Mr. Emer also shared with FCC staff some statistics from a publically available survey of North Carolina school districts, which indicated that twenty-two percent of schools have high density wireless coverage while the remaining schools have less coverage. Mr. Emer explained that approximately \$50 million would be needed to get all schools in North Carolina to where they need to be, and that \$25 million would be needed annually on a continuing basis.

Mr. Emer described North Carolina's efforts in 2006 to provide state-level funding to schools, the result of which was to connect 2470 out of approximately 2480 school buildings to fiber. Mr. Emer also explained the state's efforts to fund schools' "after E-rate costs" at about \$11-\$12 million per year, with an additional \$600,000-\$800,000 annually for charter schools. Mr. Emer commented that consortium buying is efficient and should be incentivized and rewarded. Mr. Emer also opined that rather than talking about "pipes to schools," the discussion should focus on managing access at the user level. Mr. Emer expressed his concern for dark fiber on the basis that most school districts are not equipped to be wide area network service providers. Mr. Emer explained that dark fiber should certainly be an option, but that the economics should matter, e.g., paying \$1M for dark fiber to a school that has access to a \$1500/month GigE service probably does not make sense.

FCC staff inquired about onsite wireless controllers versus cloud-based controllers. Mr. Emer explained this in his opinion, many school districts lack the expertise needed to run wireless controllers onsite and also lack actual data centers. In many cases, Mr. Emer believes that a “managed services” model may be more appropriate for internal connections. Mr. Emer also offered to share data on costs and pricing related to the management of either type of wireless controller. FCC staff also asked about general “rules of thumb” for equipment lifecycles in network planning. Mr. Emer explained the lifecycle of a switch is estimated to be four to five years, and cabling to be closer to ten years.

Respectfully submitted,

 /s/

Charles Eberle

Attorney Advisor, Telecommunications Access Policy Division, Wireline Competition Bureau

Attachments