The Honorable Chairman Cliff Hite
Ohio Senate Agriculture Committee
Senate Building
1 Capitol Square, 1st Floor
Columbus, OH 43215
(614) 466-8150

RE: Opposition to the HB 490 Telecommunications Amendment

12-4-2014

Dear Sen. Hite:

My name is Dr. Daniel L. Van Epps, and I am from Dover, OH. Based upon my background and multiple higher education degrees and certificates in telecommunications, I would like to express my opposition to the amendment in HB 490 that would allow telecommunication providers to sunset plain old telephone service ("POTS").

The committee has likely heard previous testimony regarding the hardships that POTS subscribers would encounter in losing their service, how the telecommunication providers are losing money having to provide those antiquated systems, how new regulations could still protect subscribers, etc. All of these and other issues are valid complaints and must be considered. But can some sort of compromise be attained to satisfy all involved parties?

The new and evolving digital and fiber optic networks far exceed the capabilities of the analog and copper telephony networks, and will continue to do so as researchers constantly improve the technologies. Providers must balance upgrading their systems with the newer technologies to retain their subscribers and market shares, while reducing their costs to satisfy profit margin requirements by investors and analysts.

Providers could reduce their costs by liquidating the POTS and possibly selling the surplus copper lines to China and other countries. Such infrastructure and network liquidation has occurred before in Ohio in the related rail industry, with railroad, interurban, and trolley companies abandoning and liquidating segments of their rail networks. Since c.1916 the State has lost approximately 50%+ of its route and track miles. The companies have argued that rationalization was necessary due to freight and passenger carriage competition from other transportation modes, and the loss of users such as manufacturers that moved elsewhere in the U.S., or overseas, or went out of business.

Now the economy is rebounding and the State is regaining some lost businesses, but the remaining rail network is under significant strain from the increased traffic volumes. The U.S. Surface Transportation Board has recently begun monitoring the performance of the companies to ensure a near meltdown that occurred last year does

not happen again. Ironically it was the STB and its predecessor U.S. Interstate Commerce Commission that granted authority to the railroads to abandon their lines. In most cases the ICC chose not to save the unwanted lines by mothballing them.

The ICC and STB have authorized railroads to spinoff unwanted line segments to smaller railroads, many of which now require state subsidies to maintain the tracks. Likewise, Verizon has already spunoff many of its unwanted exchanges in Ohio to the much smaller Frontier Communications Corp., with many service issues usually due to deferred maintenance remaining to be resolved.

Eliminating POTS would reduce overall telecommunications modal capacity. The move is theoretically similar to reducing or eliminating highway shoulders and medians that are used sparingly, but nonetheless are available during contingencies and decrease the risk of complete gridlock. The goal of telecommunications provision (and economic development) should instead be to provide a diverse array of modes such as fiber, copper, wireless, and perhaps even coaxial, and not rely solely upon a select consolidated technology or system.

The fiber vs. copper line situation is similar to issues in other distribution modes such as the railroads vs. the canals. As we know, the superior technology of the railroads rendered the canals functionally obsolete. Canal operators went out of business, and the State abandoned and privatized many segments of the canal system. Efforts are being made to reuse some of the abandoned towpaths for recreational purposes. Today however the existing Erie Canal in New York is still useful for various purposes including –

- Tourism – towpaths and watercraft
- Industries for water needs
- R&D for labs
- Agriculture
- Hydroelectric facilities
- Quarries and mining
- Municipal water systems
- Waste to energy facilities
- Golf courses
- Commercial shipping (42K tons worth $26M c.2012)

(New York State Canal Corporation “Report on Economic Benefits of Non-Tourism Use of the NYS Canal System”, 4-2014)

New York having saved and repurposing its antiquated canal has resulted in a more diverse statewide transportation system available to attract more industry, commerce, and tourism.

Not all technology thought to be antiquated should be arbitrarily retired. The old programming language COBOL, mainframe computers, and computer tape drives are still used by corporations for various applications. Many controllers of the Internet still use POTS, for when a portion of the Internet goes down their online Internet

communications do too, and they need an “off-line” system to communicate and coordinate online repair efforts.

Two specific railroad cases in Eastern Ohio are notable for the effects of rationalization. In one, the Ohio Rail Development Commission-owned Piney Fork Line between Minerva-Hopedale was nearly liquidated by Conrail after its area coal mining had played out. Now, Norfolk Southern has unsolicitedly invested between $10M-$20M in upgrading the line likely in anticipation of serving a future lineside natural gas processing plant. The cost would have been significantly higher to re-acquire right of way and reconstruct infrastructure. In another, CSX abandoned its main line and bridge decks between Uhrichsville-Bridgeport believing there was no future market for the high sulfur coal transported on the line. An area economic development effort failed to acquire the segment in time. Now the oil & gas industry is complaining that the corridor is poorly served by rail, hampering their efforts to get oil and natural gas liquids to external markets efficiently.

Thus caution must be exercised before permitting whole infrastructures to be arbitrarily abandoned and liquidated. While recognizing the increasing hardships suffered by the providers and the continuing need for POTS by certain subscribers, perhaps an adequate compromise can be proposed to better satisfy all of the affected parties.

Since the POTS system is unwanted by most telecommunication providers as they pursue more modern and lucrative systems, perhaps the providers could be persuaded to convey the systems to other parties more willing to continue POTS at a minimal if any profit margin. Such parties could include local governments, cooperatives, non-profit corporations, and the like.

Numerous providers and states have opposed governmental and non-profit corporation provision of telecommunication services citing unfair competition, and they do have a legitimate point. Their objections could be resolved by restricting what functions the non-profit network owners could administer and provide. For example, maybe the services offered could be limited to POTS, with no offering of or bundling with other value-added services such as TV, ISP, etc.

POTS could still be used by subscribers and third parties for faxing, dialup ISP, DSL, E911, etc. The former POTS providers could remain being customers, particularly as mentioned to communicate and coordinate with network operators during contingencies. The new POTS providers could interexchange traffic with other POTS providers in adjacent exchanges and retain connections with long distance service providers. Certain infrastructure assets such as poles, conduits, and facilities could be shared where necessary or convenient. Sharing issues could be deliberated at future work sessions, hearings, etc.

Other future POTS uses could include the following-

- Low voltage power grid
  In one case, voltage at a power plant is created at 25KV, and then increased by a transformer to 400KV for distribution over transmission wires. When it reaches a residential user, its voltage is decreased to 120VAC. (http://www.energyquest.ca.gov/story/chapter07.html) Then certain appliances such as electronic devices further decrease the voltage. The LEC's batteries provide 48VDC, which can more efficiently be converted to 12VDC or less. Fiber systems do not yet provide their own power system like POTS, and instead must rely upon the subscriber's power system. The POTS system could possibly power fiber systems too.
- Beacon location system/ground-based navigation as a backup to GPS
- Telegraphy service
- Party line service
- Scientific purposes

Thus I request that the Committee at this time remove the telecommunication amendment and allow the rest of the bill to continue through the Legislature. This or another Committee should however revisit the issue in the near future, allocating adequate time to consider and deliberate the subject.

Perhaps the Legislature could authorize a test case given the FCC's blessings. One or more exchanges could be selected for study, conveyed to non-profit parties, and monitored/audited for their transition, adherence to the current rules, quality of service, ability to improve any delinquencies, etc. Perhaps some State rules would have to be changed, taxes reconsidered, etc., as the exchanges are converted from a public utility to public service/charity. The tests could become a model for the FCC and other states on how to efficiently transition the older systems.

Thank you for your time, and I am available for any questions in person or at the following address.

Sincerely,

Daniel L. Van Epps, Ed.D.

Daniel Lee Van Epps, 48, of Dover, is a 2013 graduate of West Virginia University having obtained a Doctorate of Education in Technology Education with an emphasis of systems analysis. His dissertation was entitled "Emulation of Equal Open Access and Competition Creation in the Wireline Telecommunications Local and Last Mile Market Segments". He also completed a graduate assistantship at WVU's National Alternative Fuels Training Consortium, collaborating with industry experts to design curriculum and providing technology support. Dr. Van Epps was born in Detroit, MI, graduated from Dover High School in 1984, and also completed a B.A. and M.A. in Telecommunications/Information Systems and Technology from Michigan State University, a certificate in Fiber Optics Technology from Lansing (MI) Community College, a Master's Certificate in Intelligent Transportation Systems from the University of Michigan, CDPs in Renewable Energy from Ohio State University-Wooster, and a railroad business class at Carnegie Mellon University is pending. He is currently executive director of the Conotton-Sandy-Tuscarawas Valley Community Improvement Corporation (http://www.cstvcic.org) located in the Mineral City area, and is executive director of the Stillwater Valley Community Improvement Corporation (http://www.svcic.net) located in the Dennison-Uhrichsville area.

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