

Quick Comment about Metcalf's Law and the Pole Administrator

Metcalf's law – the value of a network is a function of the number of it's users.

Paraphrasing a famous Princeton research report - those that don't have internet access don't want it.

The rest of the statistic said that those that have internet access want those that don't to get it.

So simplifying, if I want to send you an e-mail and you don't have it as a service then my internet access is a little less valuable to me than I'd like it to be.

This simple principle, Metcalf's law, of network value applies to internet access applications ranging from e-mail, to Medical monitoring to mass product marketing.

Fairness aspects aside, it underlies the reason why the communication "haves" want the communication "have-nots" in hard to reach rural areas and poor inner city neighborhoods to get it – value to users multiplies with coverage.

If the poor and undereducated, as other recent reports are saying, are not using the internet because they don't understand its use, or are too poor to afford the available services, then, by Metcalf's Law, the rest of the internet users miss out on value.

This Council might focus on fixing the problem of our undereducated populations in the state, we won't be alone in that effort. This council might also look at why services are too expensive for the poor - but isn't the cost of a service in the hands of those that produce the services – well, not entirely where service depends on the condition of the public right of way. This is true of transportation or telecommunications – roads and poles!

The pole owners in Connecticut have managed the poles and conduit in the public right of way and did that well for over 30 years. This done, when there were largely only 2 or 3 owners and they were the service suppliers. For the past decade the Internet, as we all know has grown tremendously and all kinds of suppliers have developed – all, wireless or wired, at some point are depending on the public right of way and infrastructure like the plane old pole and conduit.

Pole management inefficiency, a factor in the cost of enabling those new services, has grown greater, unlike the rest of the service factors (e.g. Moore's Law of computing costs), and that management inefficiency represents a factor in providers not being able to supply the poor and remote as well as their main customers at ever more affordable and profitable service levels.

This council can make recommendations affecting this efficiency – a Single Pole Administrator, technically updated from what it did in the past, government appointed or

privately bid, should be examined and a recommendation made to improve the process of coordinating owner's efforts in building infrastructure in the public right of way. This would address a cost factor in the government's purview and signal to the DPUC that the Legislature might get involved if the Department finds it can't act on the question of re-establishing the Single Pole Administrator with working, standard pole agreements and supporting, transparent infrastructure records and rapid response in a dynamically growing industry.

The Connecticut Conference of Municipalities (CCM), Connecticut Government Management Information Sciences (Ct GMIS) and the towns of West Hartford, Manchester, Glastonbury and Stanford have worked with CL&P in the DPUC Working Group to create a "Standard Municipal Pole Attachment Agreement". Immediately Glastonbury will be using this "Agreement" with CL&P and AT&T as dual Pole Administrators in its FiberNet building project. The results will be communicated to the BICC in a future report of the status of this community's success or failure with the process.