

Testimony submitted in support of

Raised Bill No. 445

***AN ACT ESTABLISHING A BIOSCIENCE AND HEALTH DATA NETWORK
COLLABORATIVE TASK FORCE***

The quality of and access to digital (IT) infrastructure is a critical determinant of the competitive health of a state or region. The minimum requirements for both speed and bandwidth are rising rapidly. The emerging “internet of things” is increasing those requirements dramatically, including that for data centers and computational power. Though Connecticut has invested more than \$100 million in a high quality backbone (CEN), it has failed to develop a coherent strategy for its utilization and trails woefully in data centers (which is where the “Cloud” resides) and computational power. This task force is a constructive step to address those weaknesses.

However, the bill has two serious shortcomings: it is too narrowly focused and its composition lacks needed breadth.

- 1) The importance of digital connectivity ***and IT infrastructure*** (data centers plus high performance computing-HPC) is critically important in advanced manufacturing and in the whole array of IT support that the “internet of things” demands. Including specific reference to the three components of IT infrastructure is important: if CT only has connectivity, it will (as is now happening) encourage the relocation of all related (and high-paying) support positions out of state. IT infrastructure has “gravity”—it pulls resources towards its core, the data centers and HPC. Connecticut currently suffers slow attrition in IT not only because of its weak access to high bandwidth, but also because of the singular absence of core infrastructure.
- 2) The Task Force membership is heavily tilted towards what CT already has in place, and in some significant measure these are not the people who will fully appreciate the competitive significance of where Connecticut now is compared to where it needs to be and the competitive terrain. The membership ought to include participation by—or the mandate should require testimony from—senior technology people from leading external firms, such as Google, Amazon

(largest provider of cloud services), IBM, Cisco, Nvidia, or Dell. It should also have members who are active academic or industry researchers deeply involved with and dependent upon IT. As structured, the membership is likely to be largely or entire drawn from management, not from the ranks of scientist and engineers most familiar with the technology itself.

The sad reality is that Connecticut has been peculiarly inattentive to the rapidly changing competitive environment in the Age of Big Data and the crucial infrastructure that frames the competitive strength of the state. [The failure to attend to IT is a significant contributor to Connecticut's failure to generate net new jobs in 28 years, since 1989, the worse record on any state in the nation.] While Connecticut has now woken up to the heavy toll the poor condition of its physical transportation infrastructure imposes, it remains oddly silent about communication infrastructure. While this Task Force is a valuable corrective to that situation, without substantial participation by or input from industry experts, it is unlikely I believe for the Task Force to deliver the kind of informed strategic plan Connecticut absolutely needs.

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