The Office of Connectivity Advocacy

We need a positive strategy for assuring connectivity.

Instead of trying to fix telecom we should be working to take advantage of what we have and build vital, even if mundane applications like telemedicine and broaden our access to information while empowering communities. **By realizing the value in our existing infrastructure and encouraging the creativity we can provide immediate benefits to our economy and our safety.**

We need a "Connectivity Strategy" with a champion; a "Connectivity Advocate" who is outside the FCC and can thus can focus on a positive agenda. "Internet Connectivity" is not a telecommunications service but something new. It is based on the idea that we can create our own solutions out of imperfect resources. And it has proven to be an exceptionally powerful idea.

It has allowed us to create new solutions by focusing on the end points of relationships rather than all the myriad points between. We've seen a similar dynamic with the interstate (defense) highway system that has been credited with adding trillions of dollars to the economy. The Internet-connectivity has the potential to do far more because it doesn't have the limits of the roads and demand creates supply.

The challenge is to overcome the artifacts that we confuse with the powerful idea. We happened to have repurposed existing telecommunications infrastructure and thus the idea has become captive of the incumbents whose business of charging for transporting bits as a service is threatened. To add to this confusion we can easily spoof existing telecommunications services ourselves but still act as if only a carrier can provide the services.

Instead of spending so much time and effort forcing connectivity into a service framing we need to be able to focus on connectivity from first principles. After all, the Internet (as connectivity) and Telecom have no intrinsic relationship beyond their common use of electromagnetism to transport bits.

By having an **Office of Connectivity Advocacy** (I'm open to a better title) outside the FCC we can have a positive and proactive strategy. We have abundant existing resources that are lying fallow either because we don't recognize what we have or are forbidden from competing with those who control our very means of communicating and the vital information paths we use for commerce.

For now, I'll leave open the question of where the OCA fits – perhaps reporting to the new CTO but I hope it evolves with our understanding.

Initially the OCA would be charged with:

- Empowering communities and individuals to create their own solutions using common facilities – the bit commons.
- Education and research focused on achieving and taking advantage of end-to-end connectivity.
    - Educating Congress to understand the meaning and value of connectivity. Ideally it would play the role of providing a first-principles reality check rather than just checking for conformance to regulations. For example, a call is completed when the message gets through, not when a phone rings.
    - Assist the government in its own use of technology both for its own use and as an example for others. It could encourage technologies that have wide market appeal rather than just those that can conform to government RFPs.
    - Developing enlightened investment strategies which don't try to capture all of the value.
    - Supporting research in using networking rather than the networks themselves.
    - Supporting research in how to get more out of existing physical facilities as well as encouraging new technologies.

- - Developing decentralized protocols for connectivity rather than today's provider-centric IP
    - Working to simplify building applications using public connectivity (the bit commons). This could be mundane telemedicine, community information or …
- Acting as an advocate for a transition from a telecom framing to a connectivity framing:
    - Evaluating existing assets and business practice afresh without the century old technical and policy presumptions.
    - Working towards a bit commons or common infrastructure including removing the artificial distinctions between wired and unwired bits.
    - Assisting in transitioning the existing telecommunications industry to industries supporting and taking advantage of connectivity.

At first glance the idea of the OCA may seem fanciful but it's far easier to start afresh than trying to struggle out of the mire of the existing Regulatorium. We didn't build the automobile by modifying stage coaches – we just used our understanding of wheeled vehicles to start afresh.

In fact the OCA approach should be compelling:

- We can declare victory over the "broadband gap" by recognizing the capacity we already have.
- It's very cost effective because we are finding value in existing resources and only building new facilities when we understand the need and see the value. For the most part it is a cost savings. We no longer need to bear the burden of purposeless redundancy while leaving us with a brittle infrastructure. Instead get resilience.
- We get back hundreds of billions of dollars that are go to billable events for no real return to society. Much more as the rest of the world learns from our example.
- More important than any cost savings is that we set in motion the dynamic we've seen everywhere else in computing hardware and networking. This is vital – the OCA itself needs do only enough to start a dynamic we've seen before but which has hit the gates of telecom and has come to a screeching halt.
- What is exciting, though more speculative, is that we can start to bring this dynamic to building applications. We have simply not invested in making the creating of connected applications simple and mundane. One strong reason is that we can't assume connectivity. By assuming connectivity we create whole new markets.
- We have a precedent in the 1980's divestiture of ATT. The industry knows it has a problem but every incremental change runs afoul of *The Innovator's Dilemma* dynamic. What is needed is an external force. Repurposing the existing companies is problematic but out of their elements we can build new entities that create jobs and create new value.
- The problem is that the Regulatorium is all consuming and leaves little time to think. We don't need to get lost in the details when they are moot against the far larger idea of connectivity.

This is a win-win-win – Society (and our economy) benefit, the existing telecom works get new opportunities and it is doable now.