- Terminate the "fat fibers" at nodes where existing "home run" coaxial cables fan out to subscribers, and then ;
- Implement channel addressing by using the home-run cable's upstream capacity to send a message to the video server telling it which channels to deliver to the subscriber.

⇒ **A New Fiber Backbone Creates A Win-Win Situation Between The DTV And Cable Industries Because**:

- The new fiber backbone provides enough bandwidth to handle "must carry" and analog signals (both long and very-short-wave length), as well as voice traffic and other kinds of traffic from the worldwide network to the home-run node;
- A new fiber backbone preserves the quality of the originally transmitted signal and carries that quality all the way to the home-run node, meaning that subscribers will receive a much improved video signal;
- New fiber backbones are inexpensive;
- Construction cost for a new fiber backbone composed of many "fat fiber" bundles is no more expensive than a backbone composed of just a few fiber pairs;
- Coaxial home-run cables can be left in place;
- Coaxial home run cable can deliver many services simultaneously but capacity is no longer being used up by video services that are not being watched or recorded -- in an

addressable environment coaxial home-run cables will no longer have to deliver 60, 80 or 100 channels simultaneously, instead 8 to 10 video channels could be shipped through the cable while other, less data intensive addressable services are also delivered.

Of course, this strategy becomes possible once a cable channel's definition is expanded as proposed here. Accordingly, we believe the Internet model should carry through to the definitions of capacity proposed in Par. 60 of the NPRM. Therefore, we urge that "bits per second of digital data" be adopted as the definition of capacity for any program received by a viewer.

CONCLUSION

We have provided two different narratives that broaden the NPRM's technical context. Part I discusses a novel approaches to achieving compatibility between multiple technical systems while reducing the pressure on cable operators' capacity. Part II discuss the CATV's headend principle and compares it to the Internet communications model's address principle while explaining that channel addressing has the potential to alleviate the cable industry's capacity constraints while allowing it to fulfill "must carry" obligations. Taken together the Internet model and UVICS offer an economic and technically effective way to deliver DTV services to the public for many years. UVICS is patent-pending in the United States and internationally.

Respectfully Submitted,

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