Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matters of	)	
	)	
Deployment of Wireline Services Offering	)	CC Docket No. 98-147
Advanced Telecommunications Capability	)	
	)	
and	)	
	)	
Implementation of the Local Competition	)	CC Docket No. 96-98
Provisions of the	)	
Telecommunications Act of 1996	)	

COMMENTS OF INTRASPAN COMMUNICATIONS, INC.

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Introduction. IntraSpan urges the Commission to view its role in this proceeding as ensuring that the conditions are in place to satisfy the pro-competitive goals of the Act and so foster the development of advanced services for residential users. The Commission in this proceeding should further define the obligations of ILECs as Infrastructure Providers, and insure that all CLEC Service Providers have access to the infrastructure and particularly collocation on an equal footing with ILECs' Service Provider components. Further, the Commission in this proceeding should continue establish a regulatory framework that enables a new generation of CLECs - Churches, Community Organizations and Neighborhood Entrepreneurs - creating localized broadband networks in residential neighborhoods and lightly populated rural areas. IntraSpan urges the Commission to promote the regulatory environment which will be necessary to allow poor and rural neighborhoods to take control of their digital destiny, and in doing so surmount the "Digital Divide" which threatens to undermine the very idea of equality of opportunity the United States was founded upon.

ILECs as Infrastructure Providers. This proceeding provides the Commission an opportunity to further establish a regulatory framework which recognizes ILECs as both Infrastructure Providers and Service Providers, with different obligations and economic interests. The competitive future the United States is moving toward will eventually include many different competing infrastructures; there will be many different physical ways of getting a pulse of energy carrying information into a home of business. Different Service Providers utilizing these infrastructures will provide a wide range of innovative

communications, entertainment and educational services. This is the future foreseen by Congress in passing the Act.

As Congress recognized, the first step in the process is to create competition of Service Providers on the existing monopoly infrastructure. Eventually, competition of Service Providers will build the customer base necessary to justify the building of new competing infrastructures. New Infrastructure Providers will be formed to compete for the Service Providers' transport, and some Service Providers will choose to build out their own infrastructure. Consumers and businesses will have a multitude of communications services and Service Providers to choose from. At this point, the future Congress envisioned in passing the Act will have been achieved. It will be possible for each phone call placed from a home or business to be directed to a different local or long distance carrier or even through an IP Switch and across the Internet. The consumer's home computer will become a telecommunications control center that will route the call to the appropriate destination. Choice will not be a periodic changing of one's local or long distance telephone Service Provider but will happen every time a consumer picks up a phone or turns on the television.

At a very basic level, the Act is simply asking that ILECs acknowledge this competitive future and begin acting as if it existed now - start recognizing Infrastructure as a separate profit center, start competing for revenue from Service Providers by offering innovative and reasonably-priced collocation and UNEs, start trying to maximize shareholder return from wire and fiber in the ground. This is a question which should be asked of every possible order from the Commission: Facing competition from other

infrastructures, would an ILEC Infrastructure Provider want to offer a given UNE, collocation or cross connect to drive revenue and profitability? If the answer is Yes, the Commission is justified in making the Order.

Neighborhood Networking and Extreme Loop Unbundling. This proceeding provides the Commission an opportunity to continue to build the regulatory framework necessary to bring broadband access to residential and rural neighborhoods. Because of the low density of many of the suburban and rural residential areas in the United States, residential broadband will require a significant investment. Because of the cost and uncertainty, the major telecommunications companies will not be the driving forces behind broadband connectivity to the home. IntraSpan believes a bottom up approach is more likely, starting at these neighborhood aggregation points.

A patchwork of small networks will develop, ranging from Churches and Neighborhood Associations that wire up their surrounding vicinity to apartment building owners who want to offer connectivity to their tenants to entrepreneurs who will offer access to surrounding homes from a shared high-speed connection. A range of different delivery mediums will be utilized, from DSL to cable modems to wireless local loops. The development of broadband to the home will mirror the development of railroads at the beginning of the 1800s, when many hundreds, even thousands of small railroads were created, some just a mile or two long, using different gauges of track and different equipment.

With the collocation of equipment, each cross connect point can become a network hub serving a small localized network. Much has been made of the scope of the

Internet and its ability to create new communities beyond the limitations of shared space. Much has also been said about how the Internet lets us meet new people and access new information. However, the impact of networking will initially be felt at a very local level. It will allow people to communicate better with those whom they already share space and experiences. This is why networking has had such an impact on business: it allowed the people who already worked together to do so more efficiently. The Local Area Network has led to the development of the Internet and Intranets for business and academia, but it was the ability to communicate locally that was the compelling drive behind the networking of individual businesses and organizations.

This will hold true as networks are created in residential neighborhoods as well. The possibility of new virtual communities is compelling, but it is the effect on the communities one is already part of that is most compelling. This is why neighborhoods will be networked—because it will allow these people who share a physical community to better communicate; the neighborhood network will strengthen our sense of community and place. People already talk to their next-door neighbors and members of their Block Watch program. Their children already play with the neighbor's children, attend the same schools, and do the same homework. Neighborhood networking will bring these people even closer together.

It will be at this level, at the level of a neighborhood network, that the advantages of broadband will be realized. Neighborhood networking will allow people to strengthen their real community, to create a better world for their children and family. At this level, the connection has the ability to offer the new services Congress envisioned in passing the Telecom Reform Act; the sharing of sound, images and text. Families will quickly

utilize the potential of broadband. It could be a couple of children establishing a video and audio connection to allow them to work on a homework assignment together, or to play a video game against each other. It could be a group of mothers who agree to train a video camera on the back yard all the neighborhood children seem to play in, to allow mothers or fathers to keep an eye on what their children are doing. It could be parents checking with each other to verify their teenagers' plans to spend the night at one or the others house. These are the uses to which the neighborhood network will be put. This is how broadband will gradually become a consumer service.

The Act is integral to the development of neighborhood networks. The Commission should use this Proceeding to continue to extend the access to collocation and UNEs which will allow the creation of neighborhood networks.

The Definition of "Necessary". This proceeding provides the Commission an opportunity to establish the primacy of the competitive market in deciding what equipment is appropriate for collocation. The Commission should purposely ***not*** attempt to define "necessary", and should state to the Court its reasons for this choice. Ultimately any attempt by the Commission to decide what is "necessary" will limit competition and work against the goals of the Act.

How the segments of copper wire of the Public Switched Telephone Network are utilized is evolving. The disassembly of the network into new and ever more incrementalized UNEs will inevitably continue, until it is eventually possible to lease a segment of copper wire from one drop terminal to the next. Defining "necessary" for interconnection and access to UNEs can only be accomplished by looking backwards, and cannot hope to anticipate the likely innovations and evolutions as we move to a fully

digital communications network. Arguably, the whole point of competition is to engender different approaches. The services individual Service Providers offer through interconnection and access to UNEs will vary from Provider to Provider, and particularly when Churches and Neighborhood organizations begin creating localized networks. The functionality "necessary" to provide services will vary from Provider to Provider. It is safe to say that some will choose wrong, and that the equipment they choose to place in collocations will prove to be unnecessary. IntraSpan believes that Congress clearly had the stomach for the messy process of competition, and trusted that the market would eventually decide what equipment is necessary for interconnection and access to UNEs to provide the communications services consumers and businesses want.

And the market will decide. Collocation in a Central Office is extremely expensive. This economic reality causes CLECs to design their systems to only place critical equipment within Central Office collocations, as a means of minimizing their costs. The companies which guess wrong as to the critical combination of equipment, or frivolously place equipment in Central Office collocations, will quickly lose their access to capital and either go out of business or be taken over by more successful CLECs. Again, this process will be messy, but it does eventually arrive at the best solution. IntraSpan believes this is why there is so little legislative history as to the meaning of "necessary"; Congress assumed that the market would eventually decide, that the pro-competitive elements of the Act would allow the question to be sorted out by communications providers.

<u>Self Provisioning of Cross Connections between Collocators.</u> The Commission

should determine that Service Providers collocated in Central Offices should have the right to provision their own cross connects to other Collocators. Although this rulemaking focuses on Central Office collocations, this is an issue which will eventually arise with all forms of collocation. For Churches and Neighborhood Organizations trying to bring broadband access to poor or rural neighborhoods, the added expense and delay resulting from an inability to Self Provision cross connects to other Churches or Neighborhood Organizations or even commercial Service Providers will be a significant burden. Given the critical importance of interconnection, IntraSpan cannot believe that Congress intended to leave this monopoly over cross connections intact. The filter of a competitive infrastructure environment reinforces this point - providers of non-ILEC collocation space do allow self-provisioned cross connects, and arguably the ILEC Infrastructure divisions will eventually offer this as well in their efforts to fill collocation space.

Collocation at Remote Terminals. IntraSpan urges the Commission to allow Collocation at Remote Terminals. As Churches and Neighborhood Organizations build out small local networks utilizing Unbundled Elements, many will lack the need or resources for Central Office collocations. In many cases, these Service Providers will choose the Remote Terminal as a point to interconnect to the ILEC or another Service Provider for upstream service. Further, the Remote Terminal is a likely cross connect point to networks operated by other Churches or Neighborhood Organizations. Without the ability to collocate and interconnect at Remote Terminals and eventually the ability to cross connect at passive wire distribution points, Service Providers attempting to offer service in poor neighborhoods will be faced with significantly higher costs and as such

will be hindered in their efforts to provide service.

Copper Loops Must Be Maintained. IntraSpan urges the Commission to insure that ILECs as Infrastructure Providers continue to maintain the copper infrastructure. Despite the lure of fiber to the home, it will be years, if not decades, until poor neighborhoods have this option; realistically, the copper of the Public Switched Phone Network represents the best opportunity for poor neighborhoods to have access to broadband. As an Infrastructure Provider, ILECs should also want to maintain this infrastructure; it is a revenue-generating asset. The Commission should do everything in its power to insure the continued viability of the copper infrastructure.

Conclusion. For the foregoing reasons, the Commission should adopt the policies and requirements urged by IntraSpan.

Respectfully submitted,

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