

Wireless Local Loop: The Backbone for Alternative Networks

presented by

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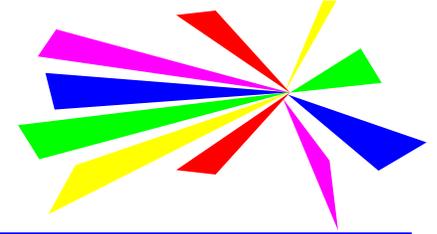
Deputy Chief,

Wireless Telecommunications Bureau

June 23, 1998



Background

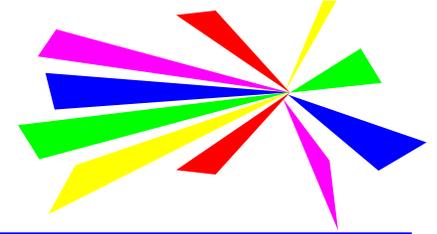


1996 Telecom Act

- *Open ILEC Network*
- *Make ILEC network elements & services available to competitors on a non-discriminatory basis and priced to forward -looking costs*



Local Competition



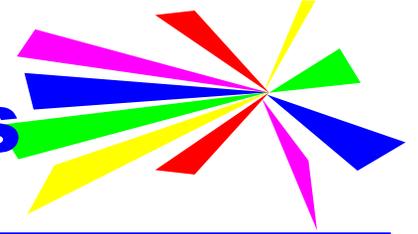
There are many roads that lead to local competition:

- *Foster growth of new networks*
- *Encourage new entrants to create stronger competitors by recognizing natural complementarity*

Results = Alternative networks with **high degrees of flexibility and functionality will attract traffic from ILEC networks**



Critical Role of Wireless



Ubiquitous network built to keep up with the pace of innovation (whether mobile, fixed or satellite)

Auction process instantly produces facilities-based competition

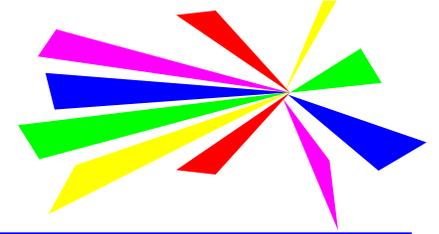
- ✓ *With each auction we create competition out of "thin air"*
- ✓ *Most rapid and cost-effective way to deploy viable facilities based competition*

FCC commitment to new entrants

- ✓ *Provide regulatory certainty*
- ✓ *Reduce regulatory costs consistent with the public interest*
- ✓ *Eliminate legal, economic and operational barriers to competition consistent with the public interest*



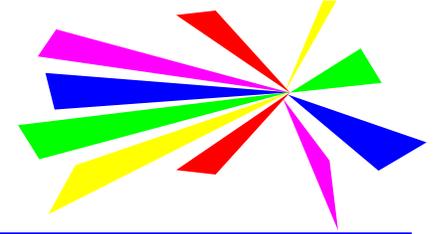
Our Crusade



The "Raiders of the Local Loop" should only be confined by their capacity to innovate and the ability to make a successful business case for their new service



Our Arsenal



Commitment for lasting and effective policy goals

- ✓ *Development of a Network of Networks*
- ✓ *Partnership with state and local governments to best serve the consumer*

Reduce unnecessary regulatory burdens and uncertainty

- ✓ *Lend predictability to transactional costs*
- ✓ *Ensure access to customers who choose to try a new competitor's service*
- ✓ *Provide regulatory symmetry for similarly situated competitors*



LMDS: The Genesis of Convergence as a Case Study



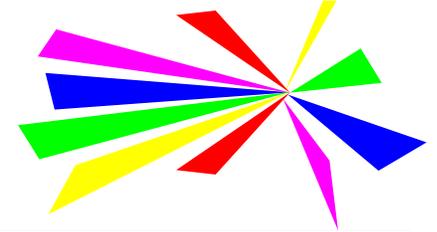
LMDS Allocation

1,300 MHz of spectrum

- ✓ *One 1,150 MHz license (Block A) in 493 Basic Trading Areas ("BTAs")*
- ✓ *One 150 MHz license (Block B) in 493 BTAs*



LMDS Allocation

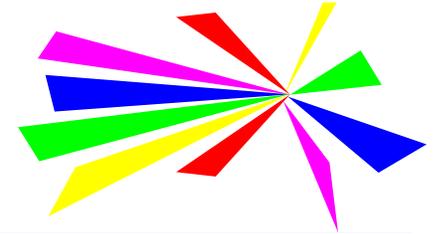


Block	Frequency Bands	Authorized Use
Block A (1,150 MHz)	27,500 – 28,350 MHz	Authorized on primary protected basis and shared with Fixed Satellite Service (FSS) systems.
	29,100 – 29,250 MHz	Shared on co-primary basis with feeder links for Non-Geostationary Orbit Mobile Satellite Service (NGSO/MSS). Limited to LMDS hub-to-subscriber transmission.
	31,075 – 31,225 MHz	Authorized on primary protected basis and shared with private microwave point to point licensed prior to 3/11/97.
Block B (150 MHz)	31,000 – 31,075 MHz	Primary protected basis if LMDS shares frequencies with Local Television Transmission Service (LTTS) systems licensed prior to 3/11/97.
	31,225 – 31,300 MHz	Co-equal basis with systems not licensed as LTTS prior to 3/11/97.

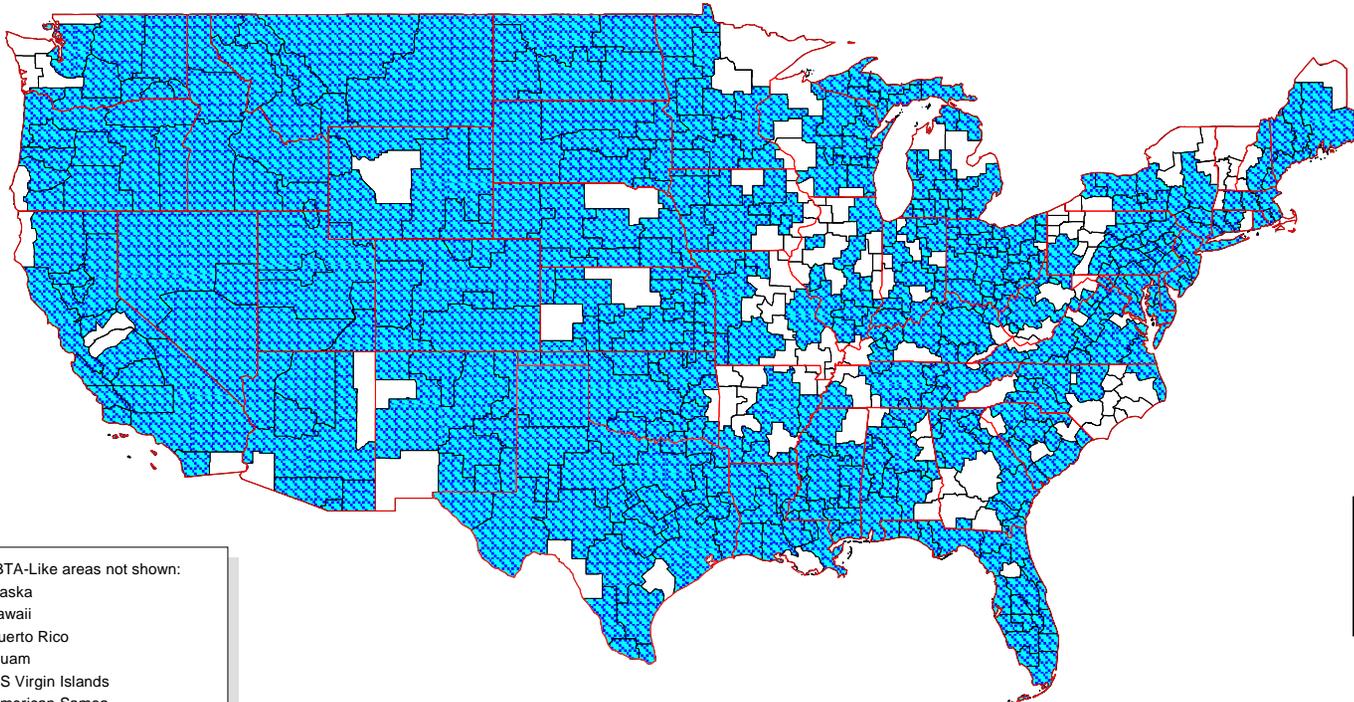
Wireless Local Loop



LMDS Auction Results



Licenses Sold

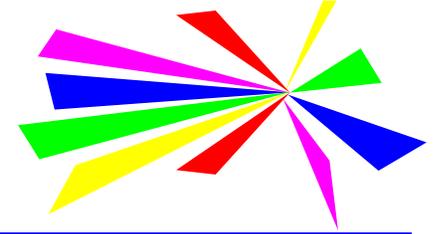


BTA-Like areas not shown:
Alaska
Hawaii
Puerto Rico
Guam
US Virgin Islands
American Samoa
Northern Marinas Islands

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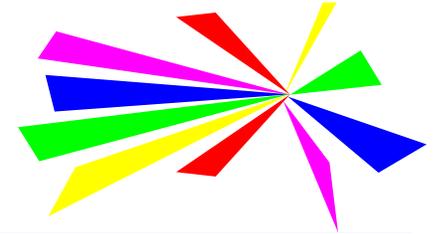
LMDS Auction Results



Number of Winners	A block licenses won	B block licenses won	Total Pops Coverage (%)	Net Revenue
104	379	485	95%	\$579MM



LMDS Auction Results



Designated Entity Winners*

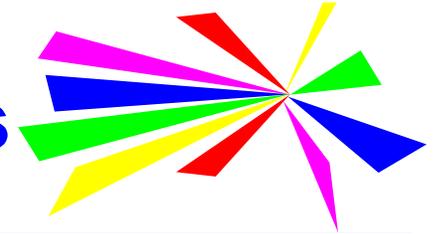
	Women	Minorities	Rural
<i>Number of Winners</i>	8	4	38
<i>Licenses Won</i>	30	9	142
<i>A block</i>	9	3	78
<i>B block</i>	21	6	64

* Please note that these categories are not mutually exclusive, therefore bidders may be in more than one category

Wireless Local Loop



* LMDS Licensing Status



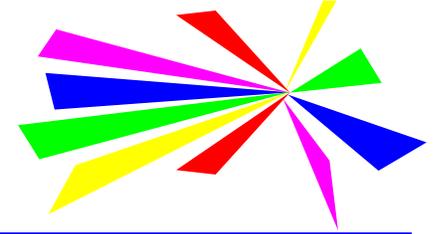
<i>Licenses Granted</i>	152
<i>Eligibility Restriction Waiver Requests</i>	1
<i>Consolidate Gross Revenues Waiver Requests</i>	1
<i>Petitions to Deny</i>	2

* as of June 8, 1998

Wireless Local Loop



Likely LMDS Services

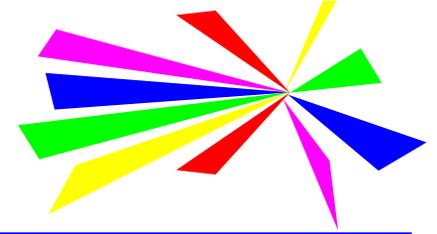


Applications

- ✓ *Audio and video telecommunications*
- ✓ *Multichannel video programming*
- ✓ *Broadband data transmission*
- ✓ *Wireless local loop, exchange and exchange access*



Construction Requirements



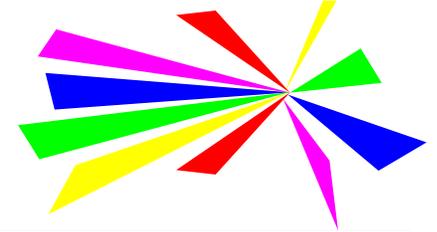
Show "Substantial Service" within 10 years.

For Renewal, Licensee must describe:

- ✓ *Geographic & population coverage*
- ✓ *Record of expansion*
- ✓ *Investments*
- ✓ *Any violations of Act or rules*



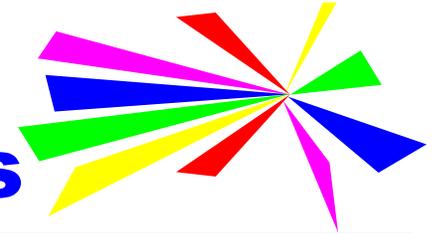
Partitioning and Disaggregation



- ✓ *Licensees may partition any geographic part of their license area.*
- ✓ *Licensees may disaggregate any amount of their LMDS spectrum.*
- ✓ *Parties to LMDS partitioning and disaggregation agreements may agree to meet the construction requirements for their respective portions of the partitioned market or the original licensee may certify that it had or would have met the "substantial service" requirement for the whole market.*
- ✓ *LMDS partitionees and disaggregatees hold their licenses for the remainder of the original licensee's term.*
- ✓ *Unjust enrichment payments for LMDS licensees that obtained a bidding credit at auction and partitioned or disaggregated to an entity that would not have qualified for such a credit are calculated on a pro rata basis.*



Inside Wiring and Building Access Rights

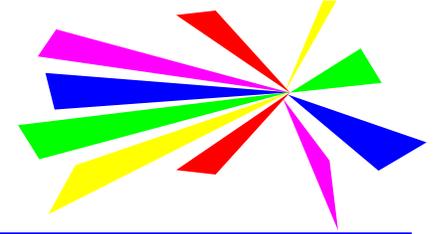


Issues raised in Inside Wiring and Local Competition proceedings:

- ✓ *Whether MDU owners should be required to make access to inside wire available to all telecommunications providers on a nondiscriminatory basis.*
- ✓ *Whether incumbent LECs must allow competitors access to rooftops and related riser conduits that are under the LEC's control.*
- ✓ *Whether MDU owners and telecommunications providers should be prohibited from entering into exclusive contracts.*



Local Government Issues

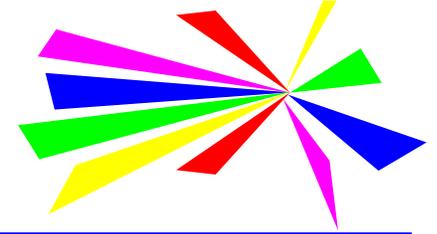


Issues faced by LMDS operators at the local government level:

- ✓ *Lack of competitive neutrality in granting rights of way*
- ✓ *Varying franchise schemes that may favor incumbent service providers*



Upcoming Wireless Broadband Auctions

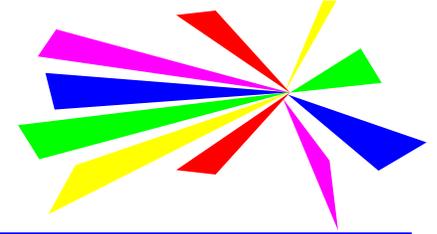


39 GHz

- ✓ *14 paired frequencies in 50 MHz blocks in 493 BTAs*
- ✓ *Partitioning and Disaggregation permitted*
- ✓ *Incumbent licensees in band*
- ✓ *Permissible operations include: point to point; point to multipoint; mobile operations (after conclusion of separate proceeding addressing interference issues.)*
- ✓ *Substantial service required for incumbents and new licensees at the end of 10 years*
- ✓ *Auction tentatively scheduled for Fall 1998*



Upcoming Wireless Broadband Auctions

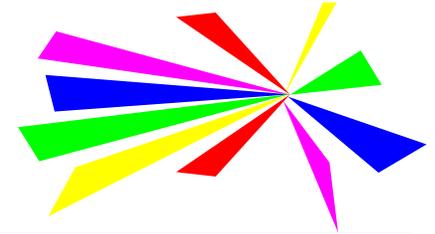


Digital Electronic Message Service (DEMS)

- ✓ *400 MHz in the 24 GHz band*
- ✓ *Proposed service and auction rules are pending*



Upcoming Wireless Broadband Auctions

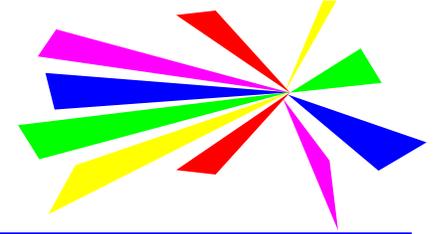


Flexible Use for MDS and ITFS

- ✓ *In a pending proceeding, the Commission sought comment on proposed rules to enable MDS and ITFS licensees to engage in fixed two-way digital transmissions.*
- ✓ *Adoption of these rules would establish a flexible framework whereby MDS and ITFS licensees could offer video, data and voice services.*
- ✓ *Even though final two-way rules have not been adopted, the Mass Media Bureau has granted developmental authority for several MDS operators who have successfully commenced testing or are providing two-way digital services, such as high-speed Internet, video and voice services.*



FCC Spectrum Auctions Website



For more information about spectrum auctions, please visit the Auctions Website at:

<http://www.fcc.gov/wtb/auctions>