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Intermodal Competition and Telecommunications Deregulation in Florida



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How Markets WorkSM

Intermodal Competition and Telecommunications Deregulation



Network convergence affects regulation.

- Assumption of a single vertically-integrated ILEC network with dependent competitors drove regulatory structure
 - Long-distance carriers [1978 – 1996]
 - CLECs [1996 -]
 - Led to economic regulation of both retail and wholesale services.
- In theory, such dual regulation (wholesale and retail) is perilous.
- In practice, with intermodal competition, deregulation of wholesale services must be considered.

Intermodal Competition and Telecommunications Deregulation



Overview

- State of competition in Florida (2005):
 - Wireline carriers
 - Intermodal carriers
 - Cable
 - Wireless
 - VoIP
 - Fixed wireless
- Effects of wholesale regulation in these markets
 - Essential facilities
 - Wholesale regulation when the retail market is competitive?
 - Regulatory reform

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Intermodal Competition in Florida Telecommunications

Prepared for: BellSouth Telecommunications, Inc., Embarq Florida, Inc., Verizon Florida Inc., and Windstream Communications Florida, Inc.

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Intermodal Telecommunications Competition in Florida

2005

Telecommunications Competition in Florida



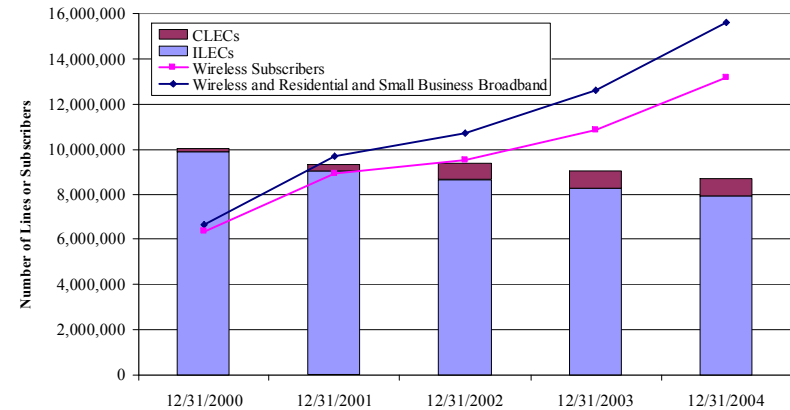
Florida PSC: “Status of Competition in the Telecommunications Industry as of May 31, 2005”:

- [A] report on local competition would be incomplete without [an] analysis of the alternatives, such as wireless, cable (VoIP-based), broadband, and ... (VoIP). These... intermodal competitors...have developed and evolved to challenge the traditional telephone wireline companies for market share. (p. 2)
- Simple CLEC market share ... understates the true market share held by competitors including wireless, cable, and other IP-enabled (Internet Protocol) providers. The gap between the CLEC market share and the true size of the competitive market share is unknown today, but we believe it will continue to grow as alternatives become more generally accepted. (p. 3)
- In previous years, the analysis of this statutory requirement has focused primarily on the wireline sector of the telecommunications market. As noted throughout this report and the 2004 report, wireless and, to a lesser extent, VoIP competition have become a significant portion of the voice communications market...increasing numbers of customers are replacing traditional wireline service with these options and, therefore staff must conclude that they are providing functionally equivalent local exchange service to residential and business customers.... (p. 69)

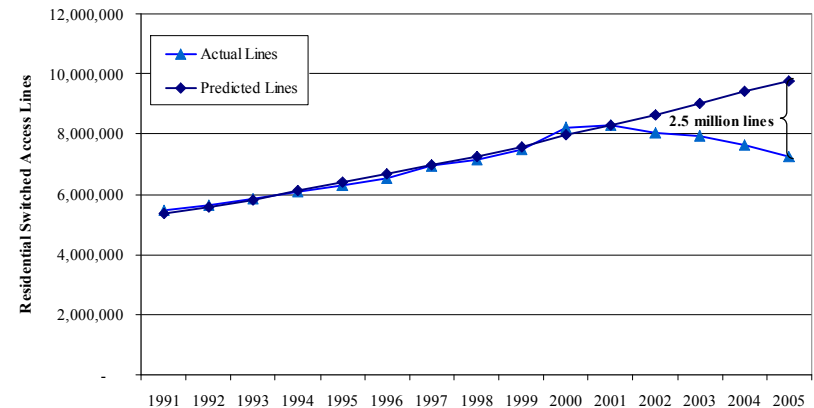
Wireline Subscription



- Year-end 2000: about 3.4 million more mass market (residence and small business) wireline access lines than total wireless subscribers and mass market high-speed broadband lines.
- Year-end 2002: about 1.3 million *fewer* mass market wireline lines than total wireless subscribers and mass market broadband lines.
- Year-end 2004: about 7 million *fewer* ILEC and CLEC mass market lines combined than total wireless and mass market broadband lines.
- Trending residential access lines using the historical relationship with population suggests a more rapid reduction in wirelines.



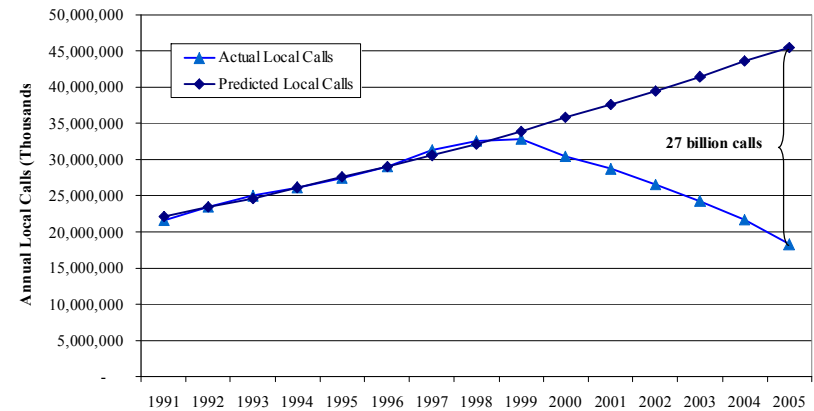
Note: Due to differences in reporting, June 30, 2005 data are not available.
 Source: FCC December 2000-December 2004 Local Competition and High-Speed Internet Reports.



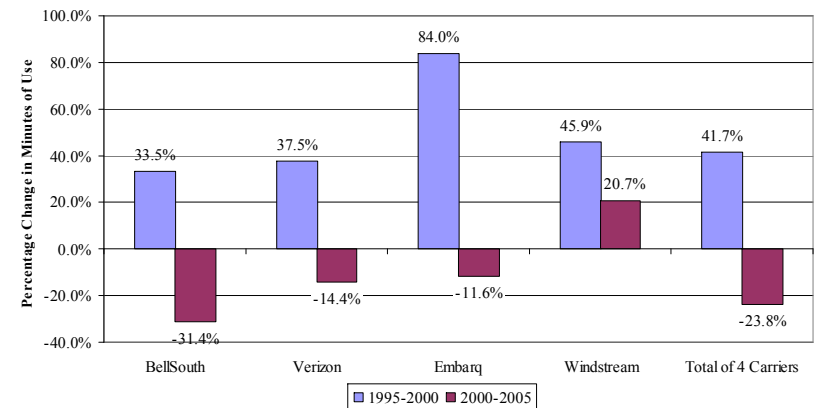
Wireline Usage



- A dramatic decline in expected wireline usage in Florida based on historical relationships with population.



- A similar dramatic reduction in Florida wireline long distance usage, as measured by the cumulative changes in switched access minutes of use 1995-2000 compared with 2000-2005.



Source: FCC, National Exchange Carrier Association, Network Usage Data.

Cable Telephony



- Cable telephony is widely available across Florida.
 - Cable passes 95% of households
 - Cable penetration is 78% of homes passed
 - Broadband deployed to 98% of homes passed
 - Telephony enabled to 63% of homes passed.

- A substitute for basic telephone service?

Table 3
Advanced Cable Services Are Widely Available in Florida

Company	Homes Passed			Percent of Homes Passed	
	Total	Broadband Ready	Telephony Ready	Broadband Ready	Telephony Ready
Comcast	3,392,721	3,304,487	1,203,565	97.4%	35.5%
Bright House	2,024,048	2,024,048	2,005,903	100.0%	99.1%
Knology	334,379	334,379	334,379	100.0%	100.0%
Cox	332,308	332,308	332,308	100.0%	100.0%
Atlantic Broadband	54,748	54,748	-	100.0%	0.0%
Advanced Cable	44,255	44,255	44,255	100.0%	100.0%
Mediacom	28,158	28,158	25,472	100.0%	90.5%
Other	40,909	27,335	-	66.8%	0.0%
Total	5,917,147	5,815,339	3,611,503	98.3%	61.0%

Note: Because Knology is an overbuild operation, Knology homes are subtracted from the totals shown. As a result, totals include the primary provider only and may thus understate the services available.
Comcast includes the former Adelphia and Time Warner systems in Florida.
Source: Warren Communications News, *Cable Fact Book*, GIS Format.

Table 5
Cable Telephony Share of Households

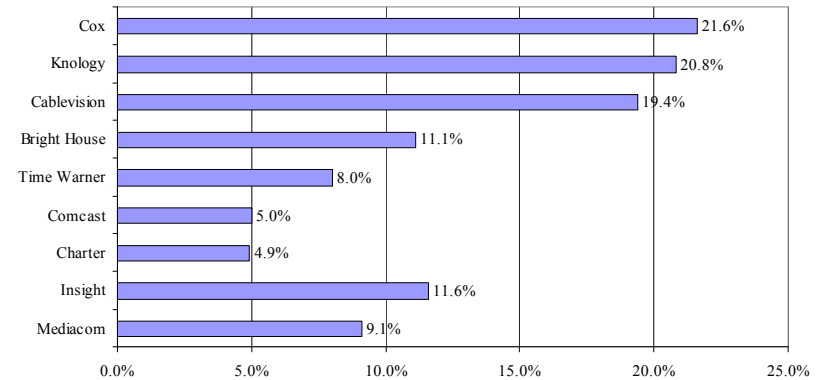
Area	Population Density (persons/sq. mile)	Cable Telephony Share of Households	
		First Half of 2005	Oct. 2005 - Mar. 2006
MSA Group 1	over 1,000	1.4%	4.7%
MSA Group 2	500-1,000	0.8%	3.9%
MSA Group 3	Less than 500	2.5%	4.4%
Non-MSA Area		0.4%	3.7%
Statewide		1.6%	4.4%

Source: Cable share: TNS Telecoms ReQuest® Consumer Survey.

Cable Telephony

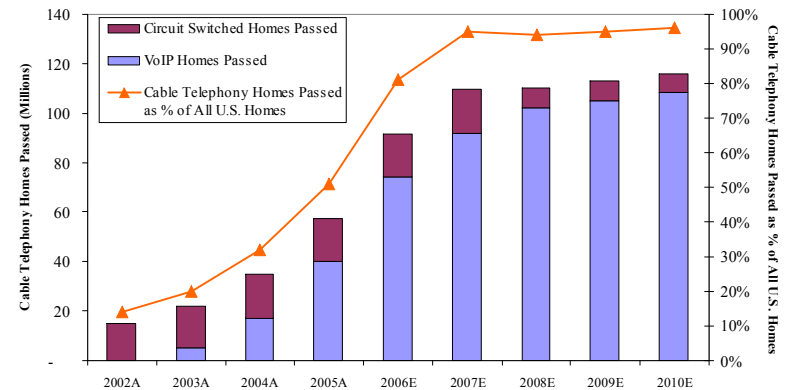


- National penetration rates for cable telephony.
 - Data presented in chronological order of deployment (from top to bottom)
 - Penetration increases significantly with time.



Source: *VoIP Deployment & Strategies Update: Cable Operators*, Broadband Advisory Services, Pike & Fischer, July 2006, p. 3; Bright House Networks Press Release, *More than 225,000 Florida Families Switch to Bright House Networks Digital Phone: Now Announcing a Florida Unlimited Calling Plan*, May 2, 2006 and Table 1; Knology Inc, SEC, Form 10-Q, March 31, 2006, p. 12.

- Cable telephony availability is forecasted to increase dramatically.

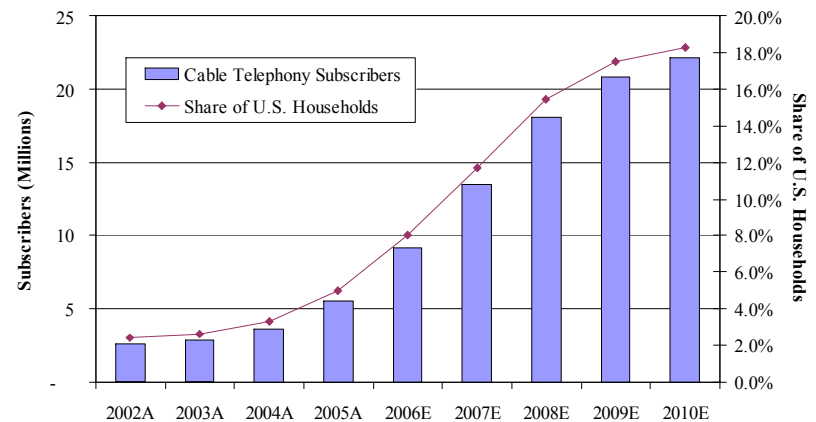


Source: J. Halpern, et al., Bernstein Research, *Quarterly VoIP Monitor: VoIP Growth Still Accelerating*, April 18, 2006, Exhibit 12.

Cable Telephony



- Cable telephony penetration is forecast to grow rapidly
- But from a small base as a proportion of addressable households. Room for expansion.

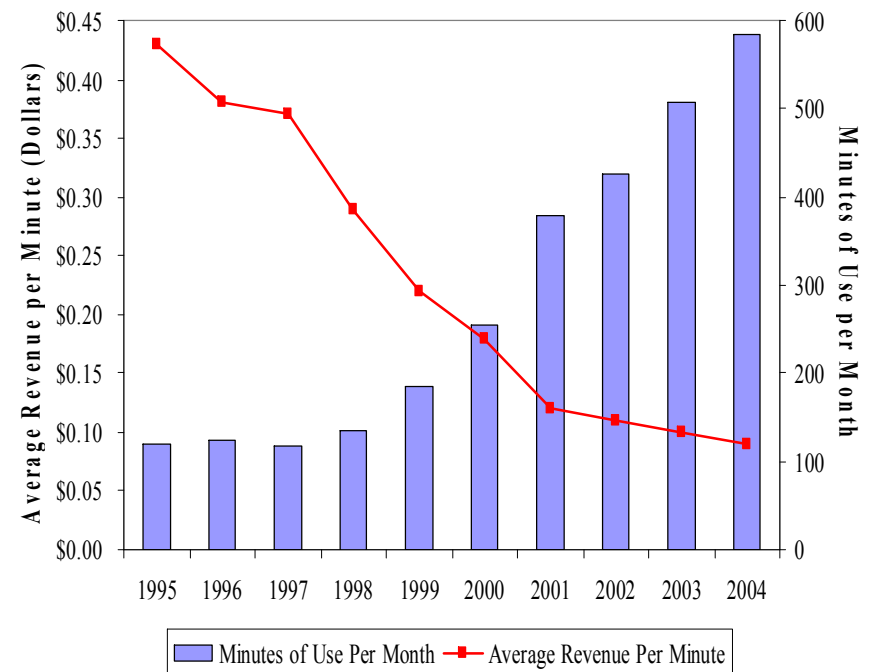


Source: J. Halpern, et al., Bernstein Research, *Quarterly VoIP Monitor: VoIP Growth Still Accelerating*, April 18, 2006, Exhibit 13.

Mobile Wireless



- National penetration grown to 62% of the population and over 90% of the 20-49 population.
- Dramatically lower prices and higher usage volumes.
- Substitute or complement?
- Substitute for basic exchange service?

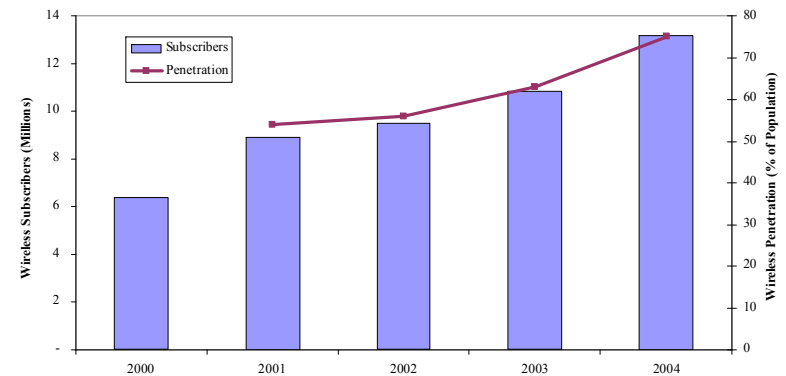


Source: FCC, Tenth Annual CMRS Competition Report, Table 8.

Mobile Wireless



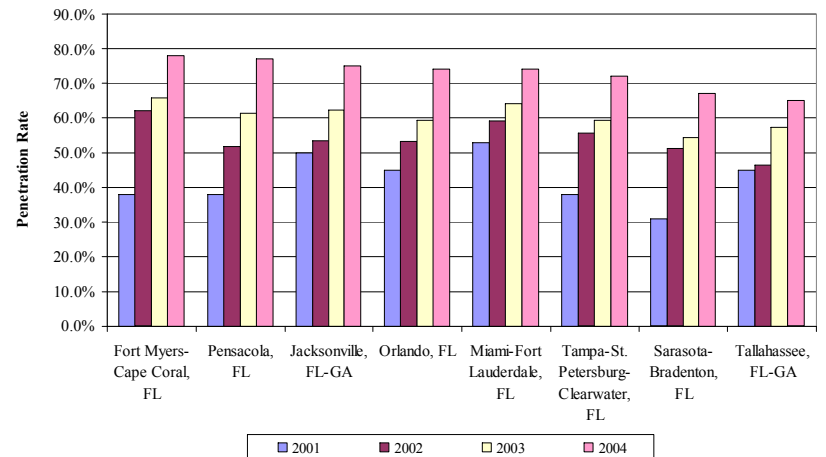
- Florida subscription growing rapidly.
- In December 2004, wireless subscribers exceeded wireline subscribers by almost 2 million.



Note: Wireless penetration not available for 2000.

Source: FCC December 2004 Local Competition Report, Table 14 and Florida PSC 2005 Competition Report, Figure 13.

- Growth has occurred throughout Florida economic areas.

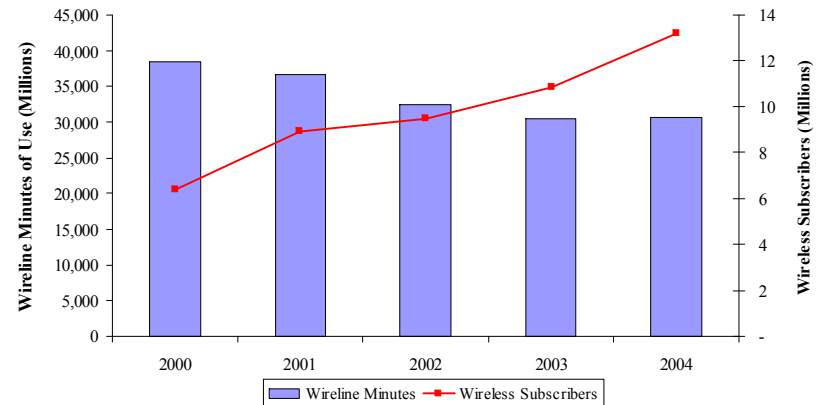


Source: Seventh-Tenth CMRS Reports.

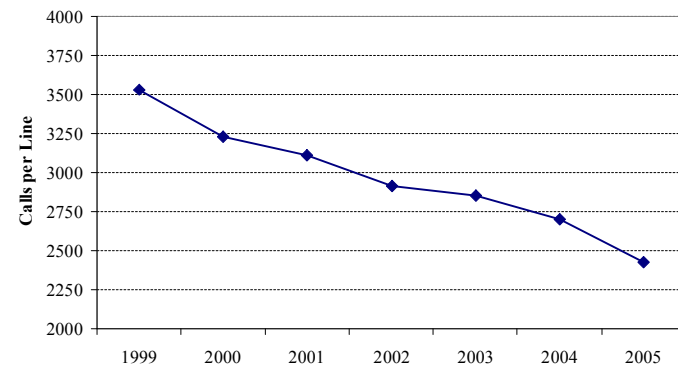
Mobile Wireless



- Wireless calls have displaced wireline minutes of use in Florida.



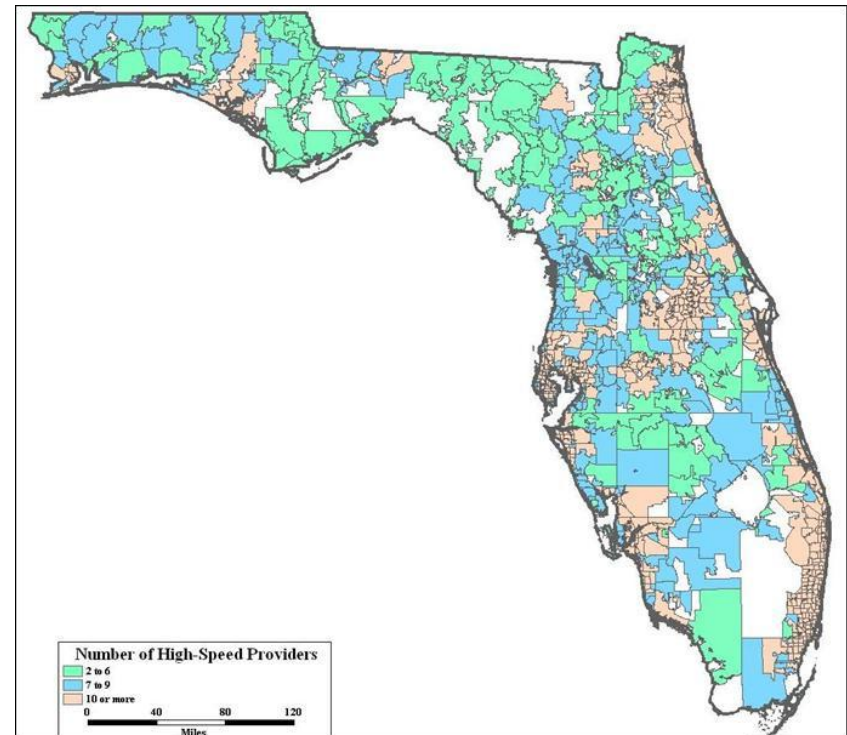
Note: Minutes of use are interstate switched access minutes for Alltel, BellSouth, Embarq and Verizon.
 Source: FCC, National Exchange Carrier Association, Quarterly Minutes of Use Data; *FCC December 2004 Local Competition Report*, Table 13.



Note: (1) Total lines are total switched access lines from ARMIS. Data include BellSouth, Verizon and Embarq.
 Source: ARMIS, Report 43-08, Tables III & IV

Broadband and VoIP

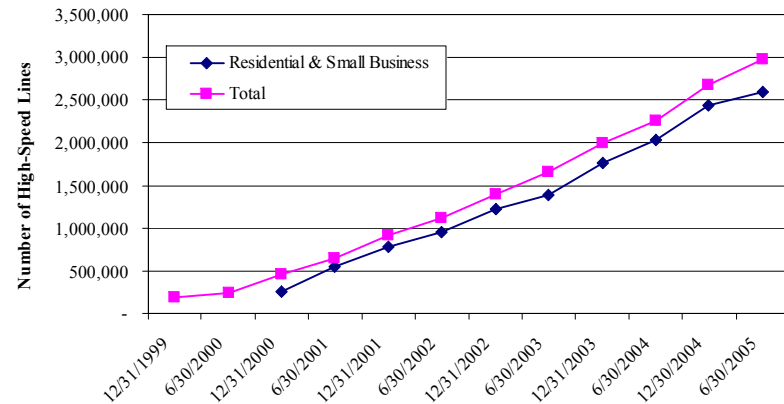
- Every zip code in Florida has 2 or more broadband providers.
- 96 percent of zip codes have 4 or more providers.
- High-speed DSL connections available to 85% of Florida households;
- Cable modem service available to 94 percent of homes passed.



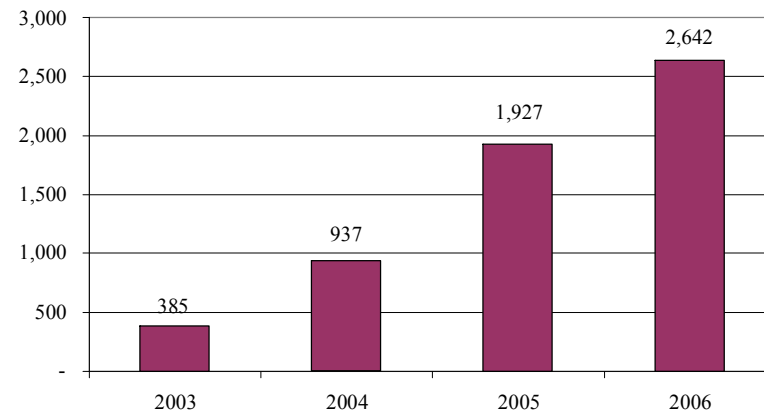
Broadband and VoIP



- Florida PSC survey shows broadband penetration (12/2005) as percent of population was 46%, above the national average of 36%.
- FCC data show dramatic growth.
- WI-FI access widely available in Florida
- WiMAX: Clearwire in Daytona, Jacksonville.



Note: Data on residential & small business not available until 12/31/00 and is residential only at 6/30/05.
 Source: FCC June 2000-June 2005 and December 1999-December 2004 High-Speed Internet Reports.



Note: 2006 figure as of June.
 Source: JiWire Hotspot Directory, available at www.jiwire.com.

Broadband and VoIP



- Rapid national growth in independent VoIP subscribers.
- VoIP suppliers have local area codes throughout Florida.
- Package prices competitive with wireline / wireless packages.



Consequences for Regulation

Economic Regulation of Telecommunications Services



- Long experience in regulating and deregulating retail markets.
 - Cost-of-service replaced by price regulation replaced by pricing flexibility or deregulation where warranted.
 - General agreement on market power as trigger. General disagreement on everything else.

- Less experience, but long-time economic regulation of wholesale services in the U.S.
 - Carrier access services since 1984
 - Wholesale local exchange services (UNEs / resale) since 1996.
 - Little thought regarding regulation or deregulation of wholesale services.
 - Understanding the relationship between retail and wholesale services and regulation is now necessary, due in part to intermodal competition.

Economic Regulation of Telecommunications Services



- In economics, *benefits* from wholesale regulation are different:
 - welfare effects are measured in the market for final goods.
 - If wholesale regulation has no effect downstream, it has no benefits for consumers.

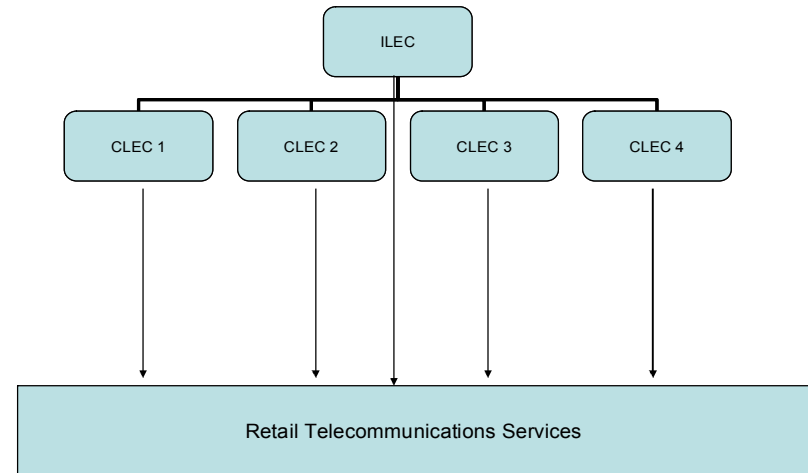
- *Costs* of wholesale regulation are more complex:
 - Induces distortions in retail markets because some platforms are regulated and others are not.
 - Incentive effects are important because network investment is sunk and irreversible.

Economic Regulation of Telecommunications Services

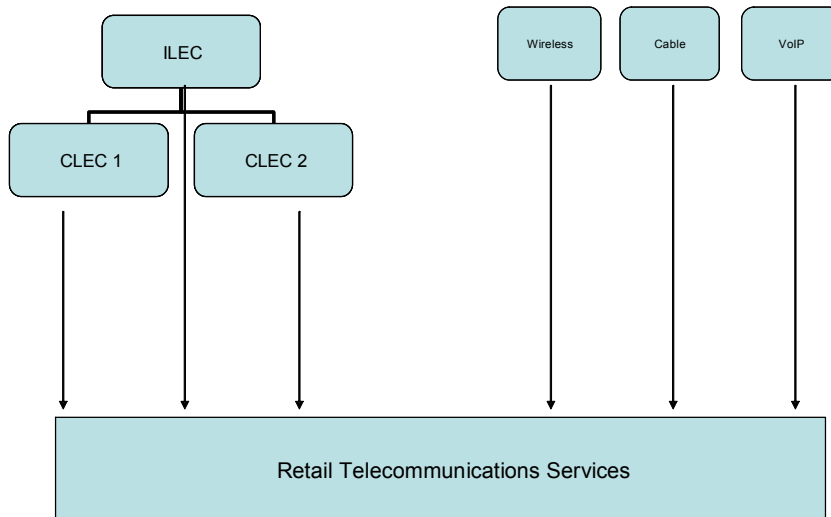


Essential Facilities

- Assume the retail market is competitive.
 - Assume all competitors are dependent on ILEC facilities.
 - The ILEC has the ability to exercise market power in the wholesale market.
 - Increase in the wholesale price passed through by all carriers
 - Hence extraction of additional profit from wholesale monopoly requires effective market power downstream.
- Not unreasonable to regulate wholesale services when they meet the conditions for an essential facility.
 - May be more efficient methods than *ex ante* regulation.



Economic Regulation of Telecommunications Services



Intermodal Competition

- The retail market is competitive and would be absent the dependent CLECs.
- Even though the ILEC is (assumed to be) a monopoly supplier of the wholesale service, it possesses no market power.
 - Has no ability to extract supracompetitive profits from dependent CLECs
 - Has no incentive or ability to price wholesale services at an anticompetitive level (entailing a margin squeeze).

Economic Regulation of Telecommunications Services



Conclusions

- Ex ante economic regulation of both wholesale and retail services is generally unwarranted, inconsistent and rife with inefficient, unintended consequences.
 - Particularly, if retail market is effectively competitive
- Ex ante regulation of wholesale services is best confined to essential facilities. BUT:
 - We frequently don't know if a facility is essential at competitive market prices.
 - Efficiency consequences of regulating some platforms but not others recalls the debacle of surface transport regulation: truck / rail / barge.
 - Ex post regulation through competition law avoids these costs.