

# Seizing Rural Network Opportunities

RCA Network Interoperability 2005

Miami, Florida

January 27, 2005

Presented by: Mehran Nazari

# Outline

1

**Wireline Vs Wireless**

2

**Present State of the Market**

3

**Ideas to Improve the Bottom Line**

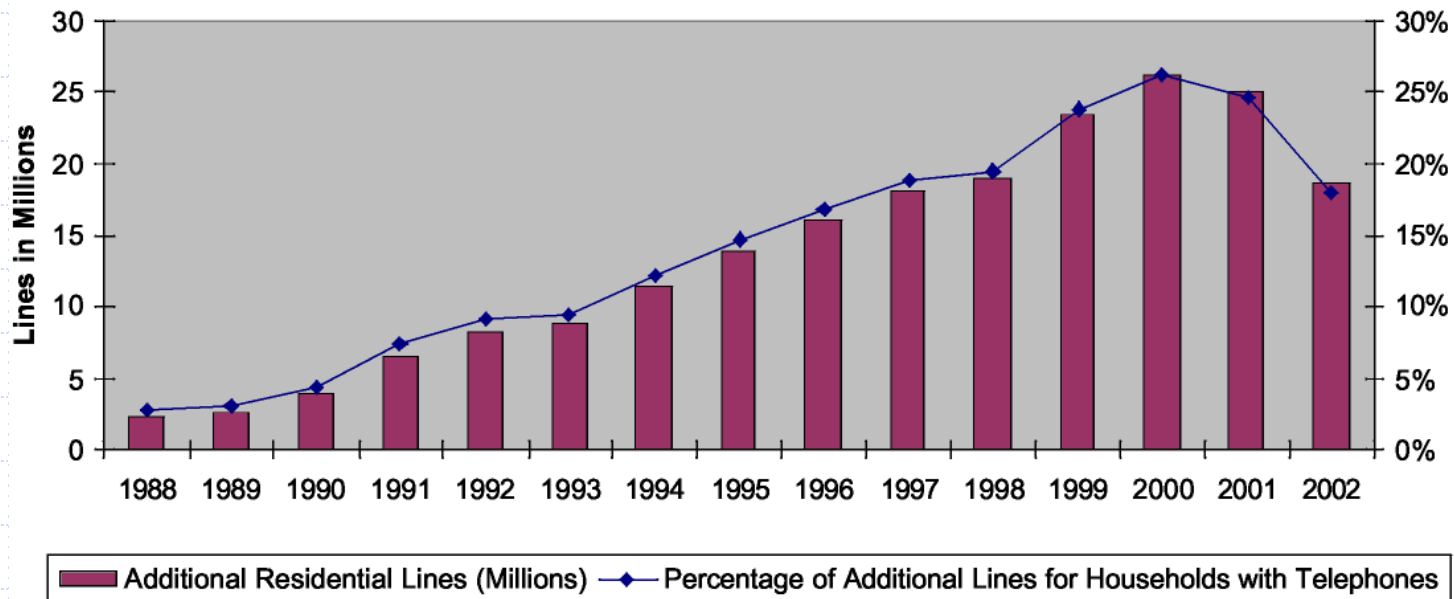
# The Future of Telecom is in Wireless

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# Additional Residential Lines for Households with Telephone Service



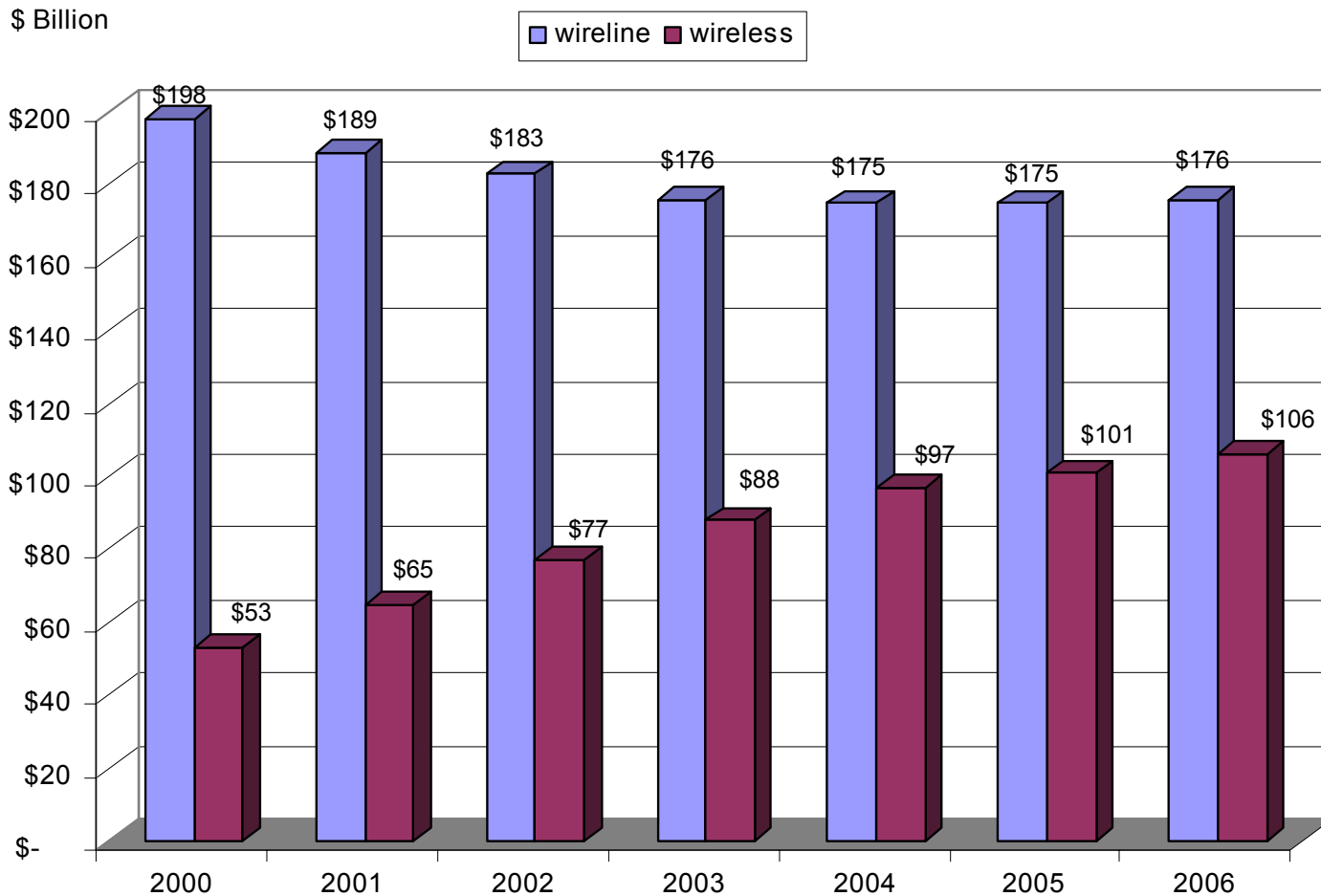
Source: FCC Report, Trends in Telephone Service, May 2004

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# US Telecom Market Revenue



Source: Deutsche Bank, A.T. Kearney Analysis

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# Wireless History - Highlights

**1981** - FCC award two cellular licenses per market

**1983** - AMPS became the first standardized service in the world

**1983** - First commercial cellular system begins operating in Chicago

**1987** - Industry tops \$1 billion in revenue

**1992** - FCC allocates spectrum in the 2 GHz band for PCS

**1998** - Average consumer used phone for 122 minutes per month

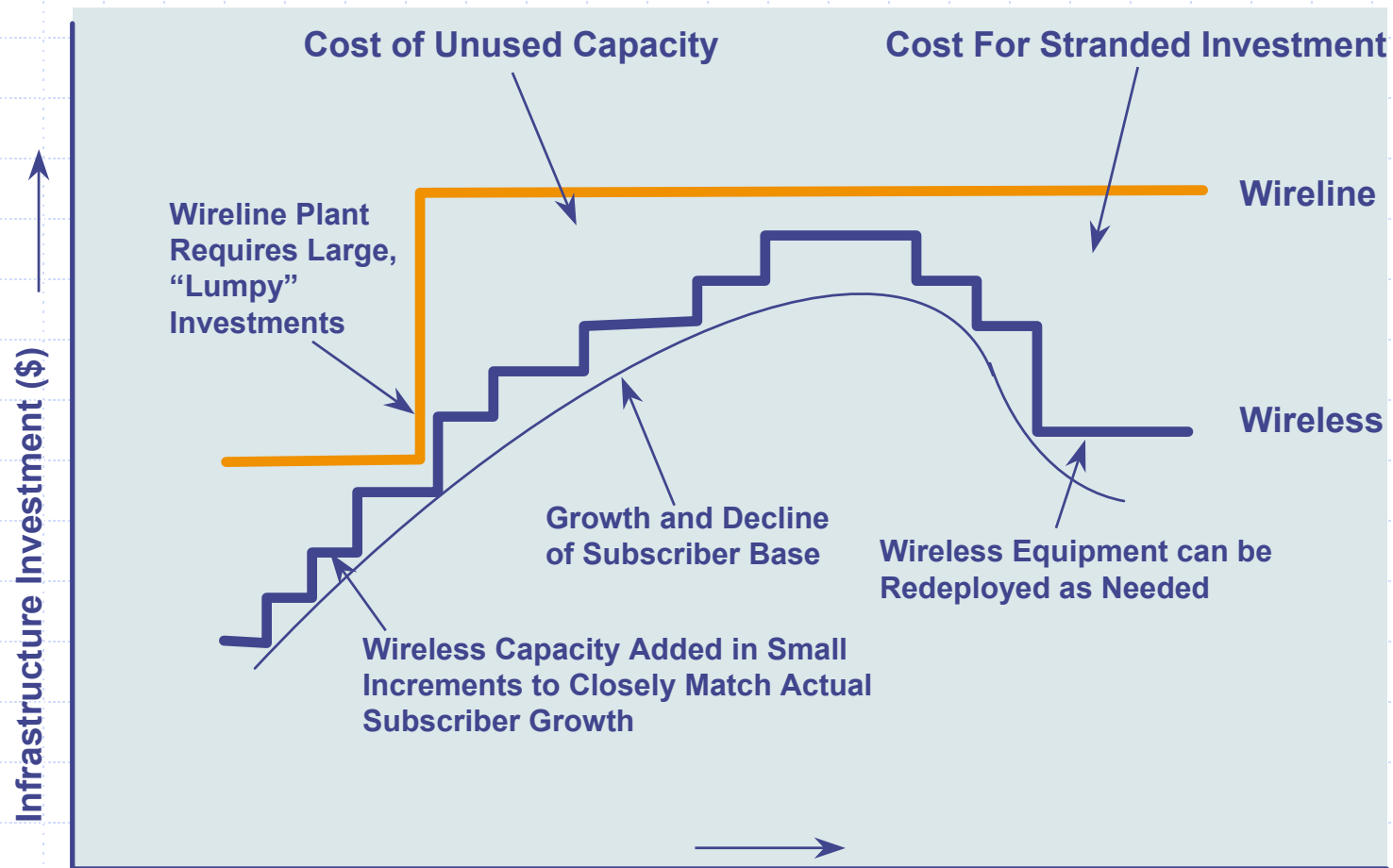
**2000** - **Wireless subscriber-ship in America exceeds 100 million**

**2001** - Average wireless consumer uses phone for 320 minutes per month

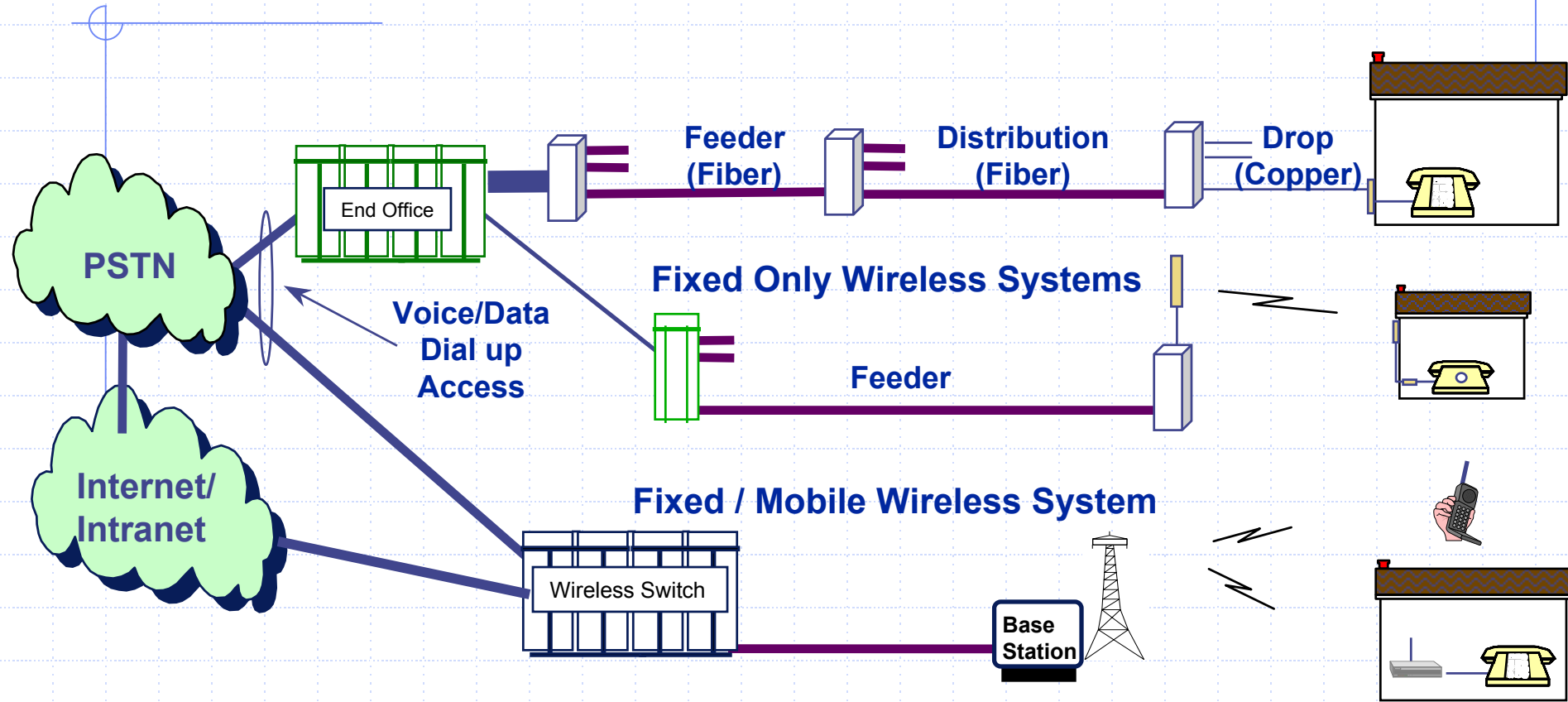
**2002** - Delivery of digital wireless data and voice enhanced networks (2.5G)

**2004** - Delivery of digital wireless data and voice enhanced networks (3G)

# Advantage of Wireless Over Wireline

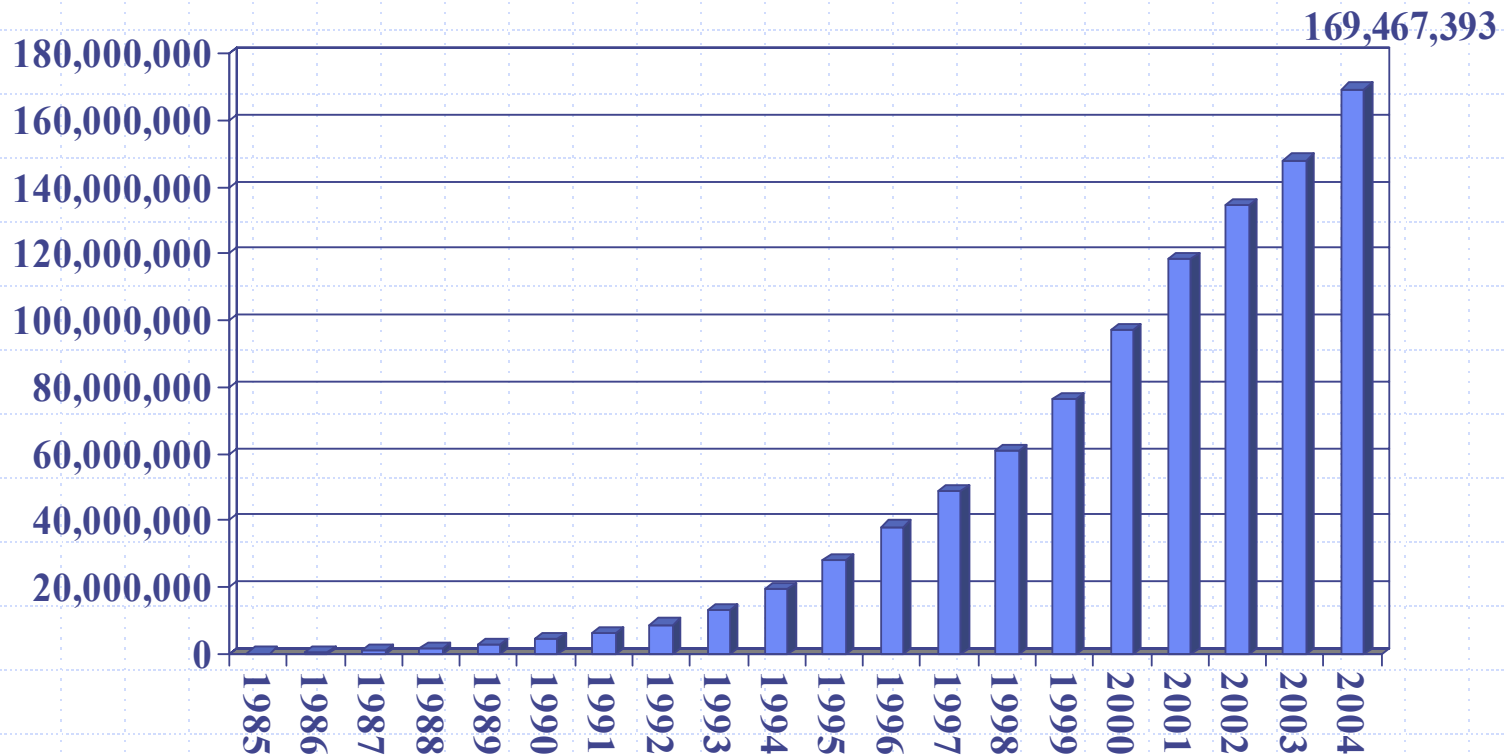


# Access – Wireless Vs Wireline





# Wireless Subscribers



Subscribers Grew 14.5% in 2004

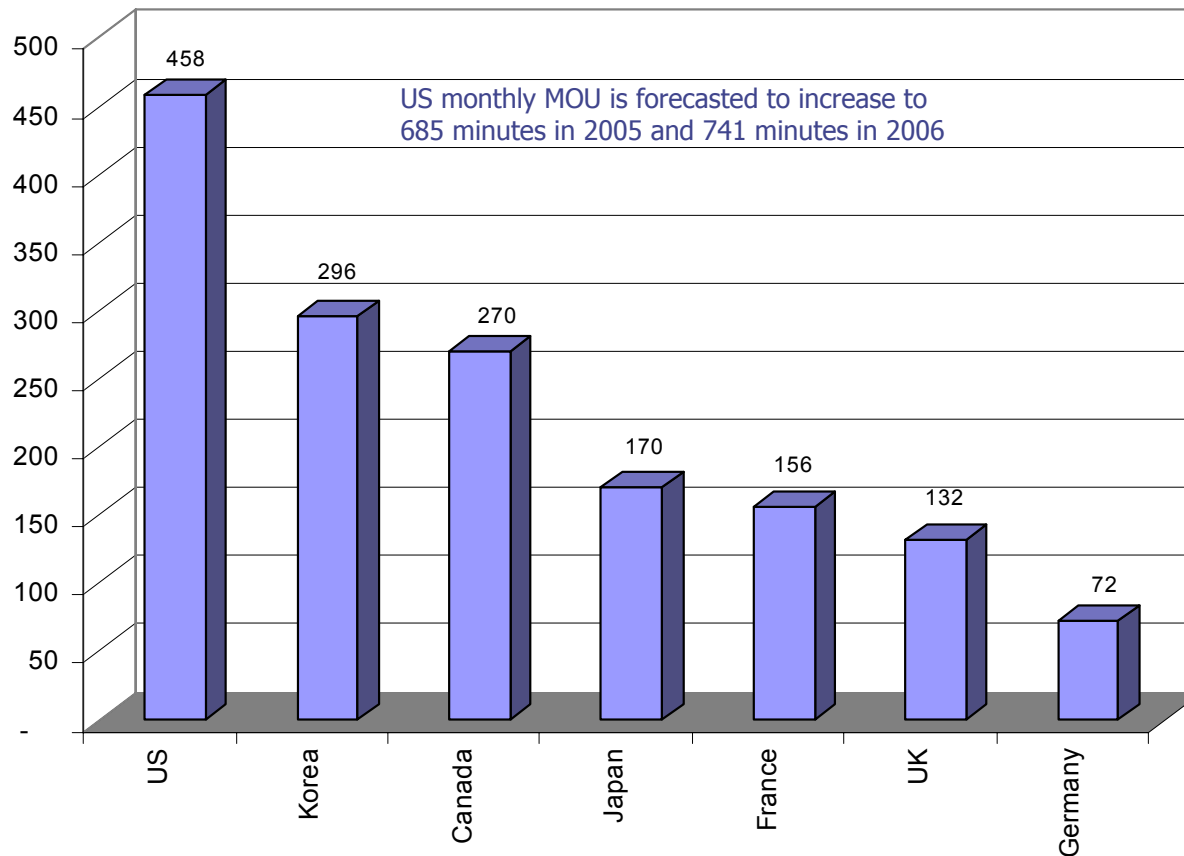
Source: CTIA

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# Monthly MOUs

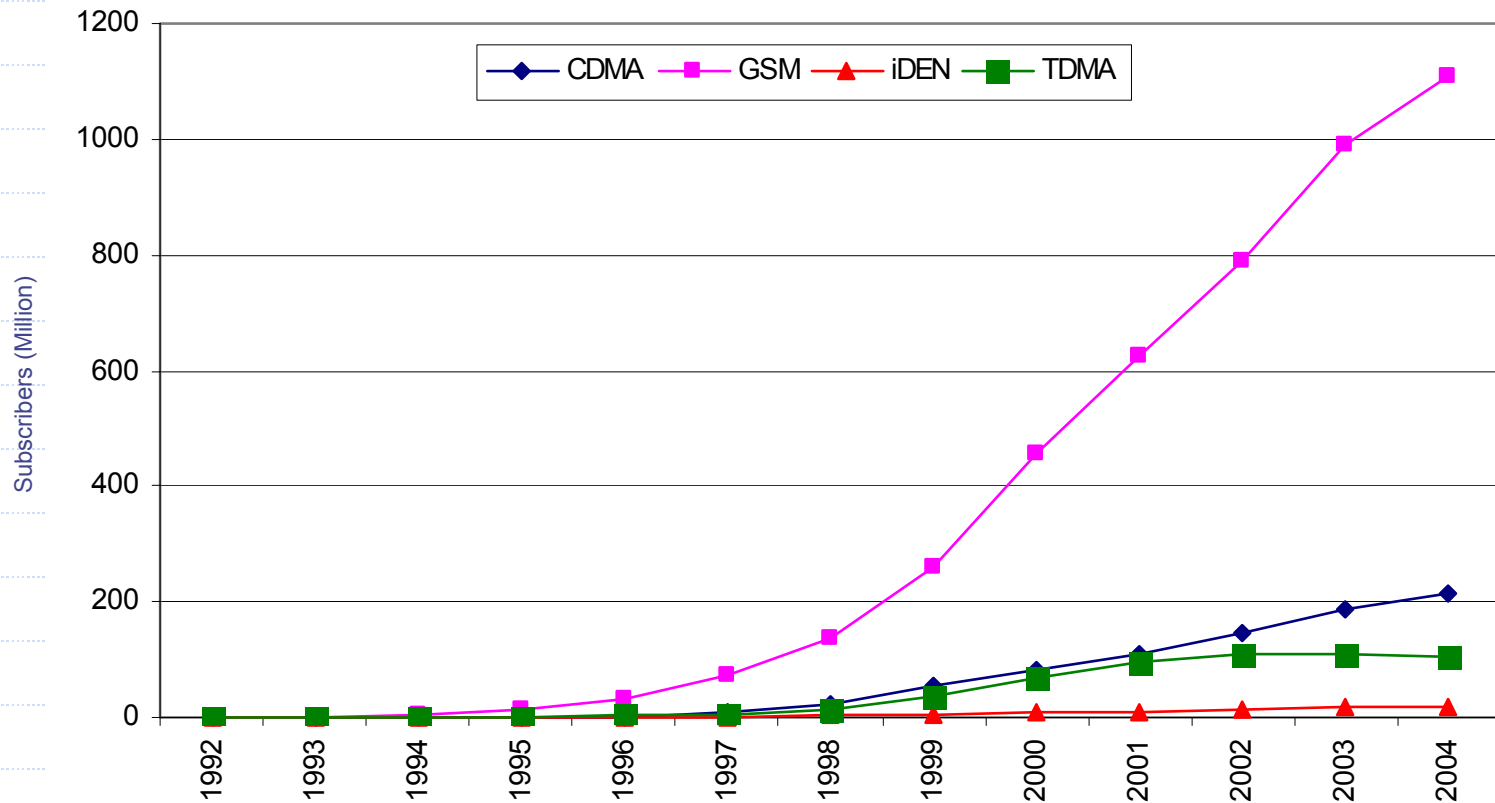


Source: Merrill Lynch Analyst Reports, A.T. Kearny Analysis

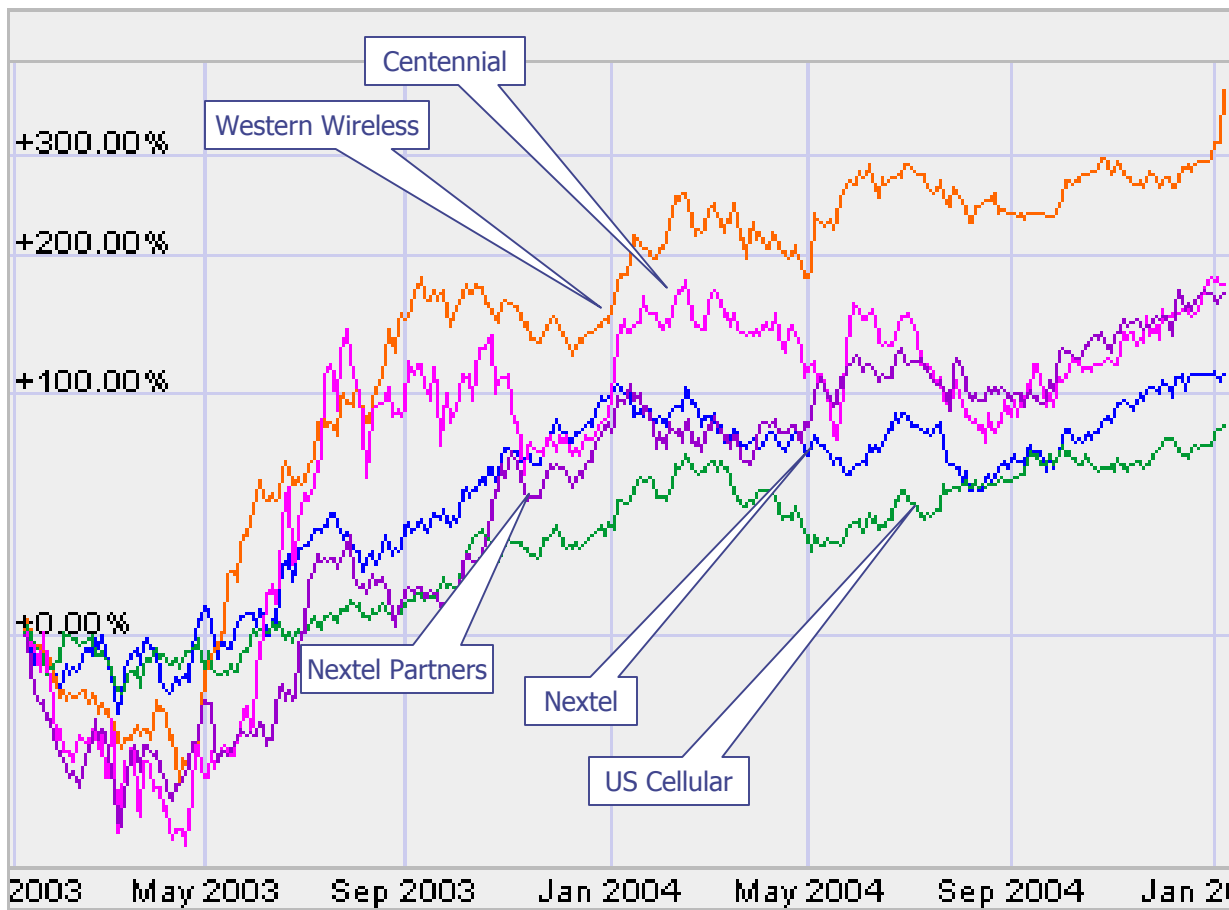
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# Subscriber Growth by Technology



# Stock Market



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# Facts

- Total Wireless Subscribers Increased by 14.5%
- Wireless Capital Investment Increased by 16.8%
- Use of Wireless Minutes Increased by 35%
- Total Cell Sites Increased by 18%
- Direct Wireless Carrier Employment Increased by 13.4%

Source: CTIA

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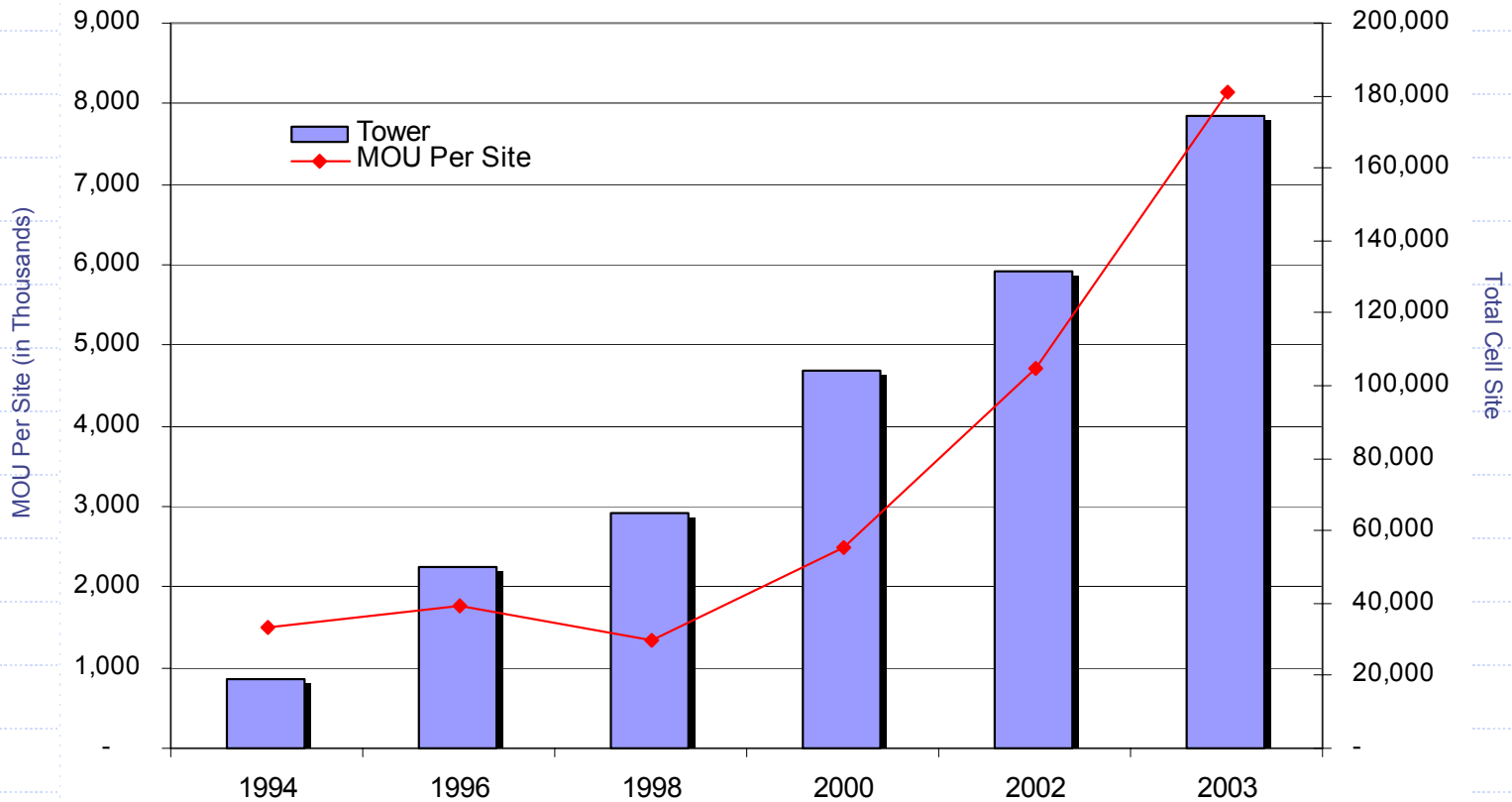


# One Troubling Fact

Roaming rates started on a downtrend

- From a typical **99¢/min** air, and **35¢/min** toll, plus the **\$3** daily charge,
- To **25¢/10¢** with no daily charge; and
- Finally rates at **15¢/10¢**, **10¢/10¢**, **25¢/10¢** or **10¢/5¢**

# Cell Site & MOU



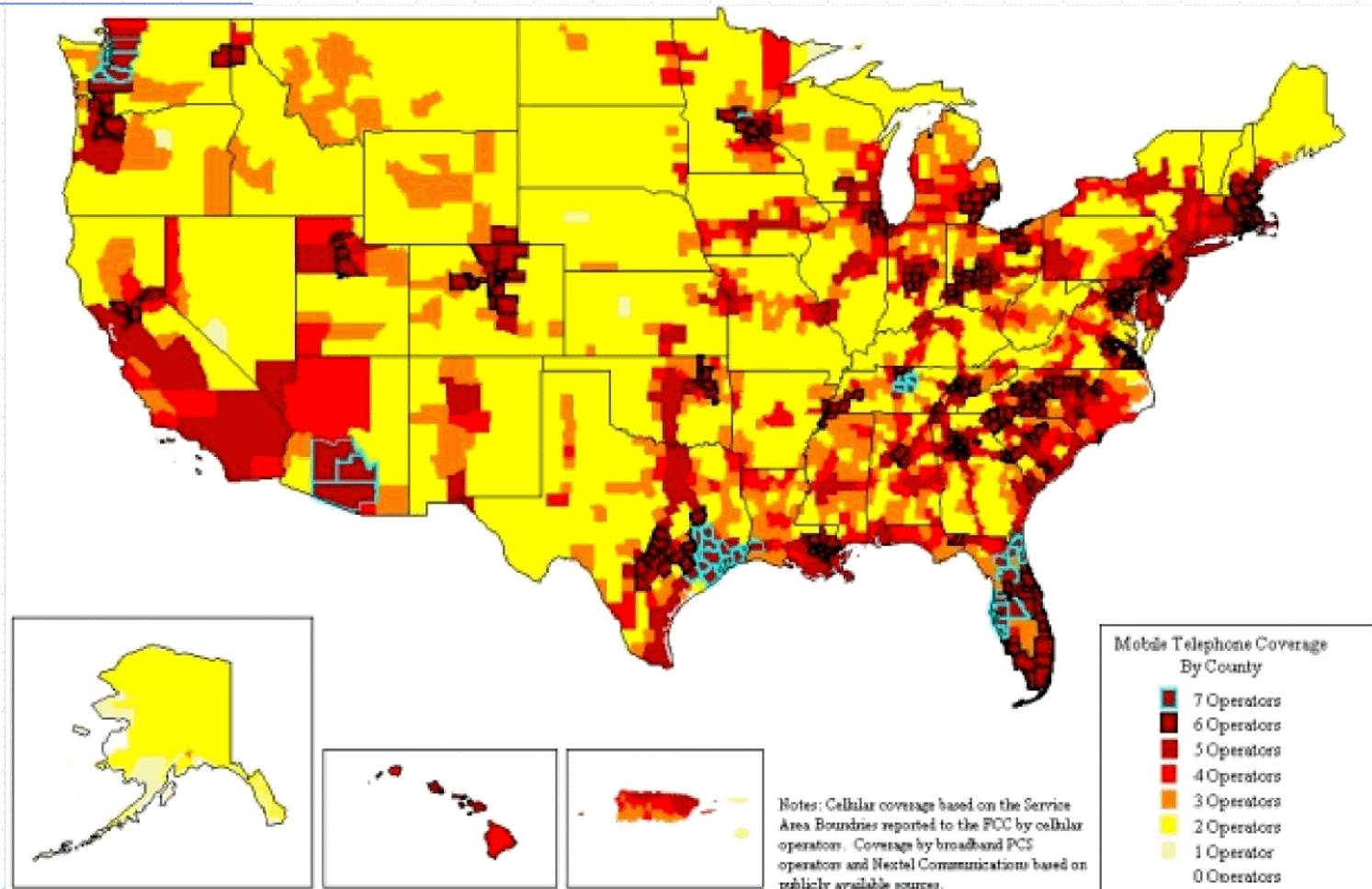
Source: CTIA Survey

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# Wireless Operator Coverage Estimated by County - 2000

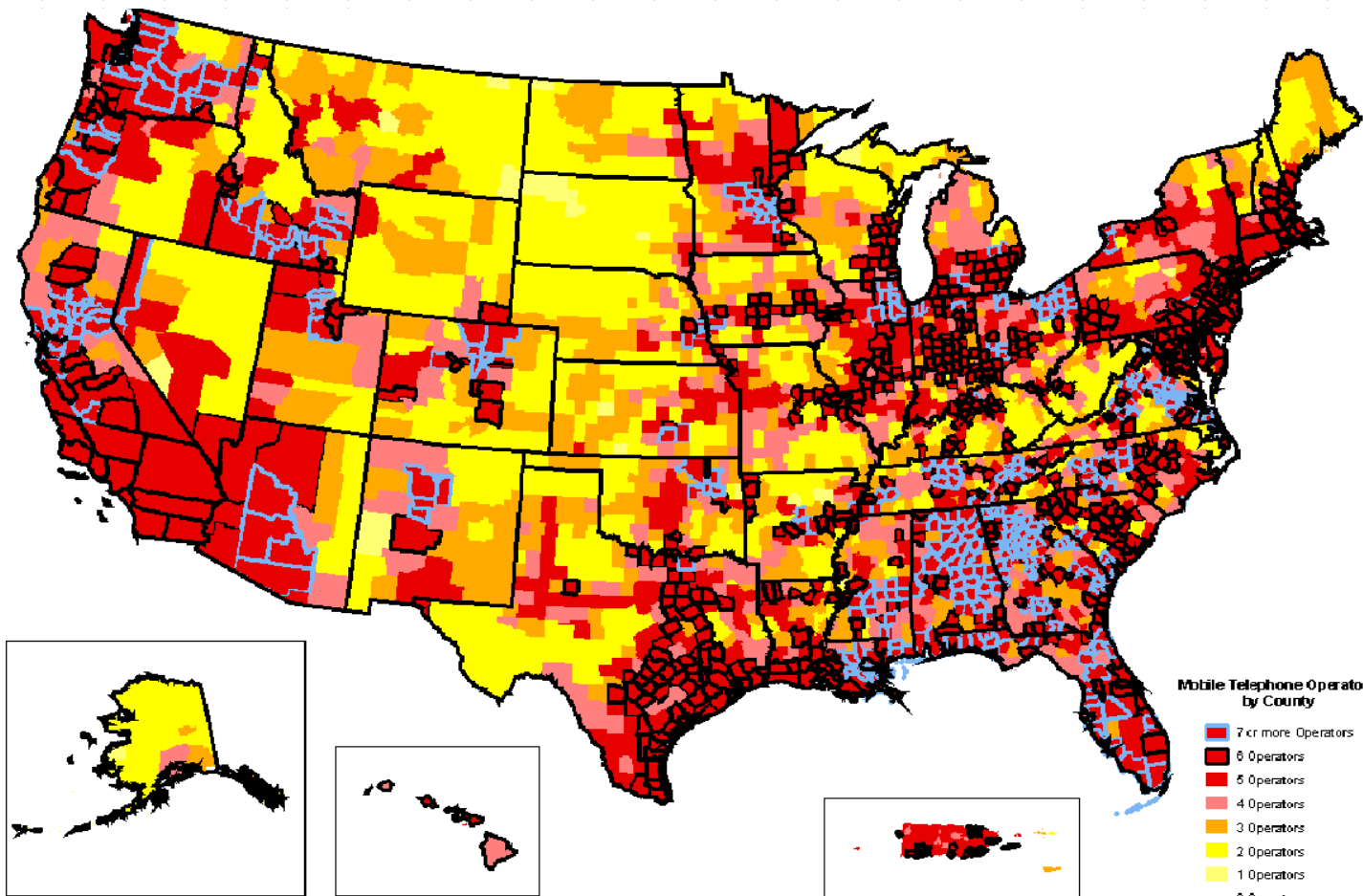


Source: FCC As of Sept 2000

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# Wireless Operator Coverage Estimated by County - 2004



Source: FCC As of Sept 2004

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# Present Business Challenge for Rural Carriers

- Multiple network platforms
- Increase in Capital Expenditure/ Operation Expenditure
- Dependence/Reliance in Roaming Revenue
- Maintain/Increase Average Revenue Per User (ARPU)
- Maintaining/Increasing Subscribers
- Spectrum management in face of new high bandwidth services
- Rippling effect of the mergers and acquisition
- Cost of Existing/Future Mandates

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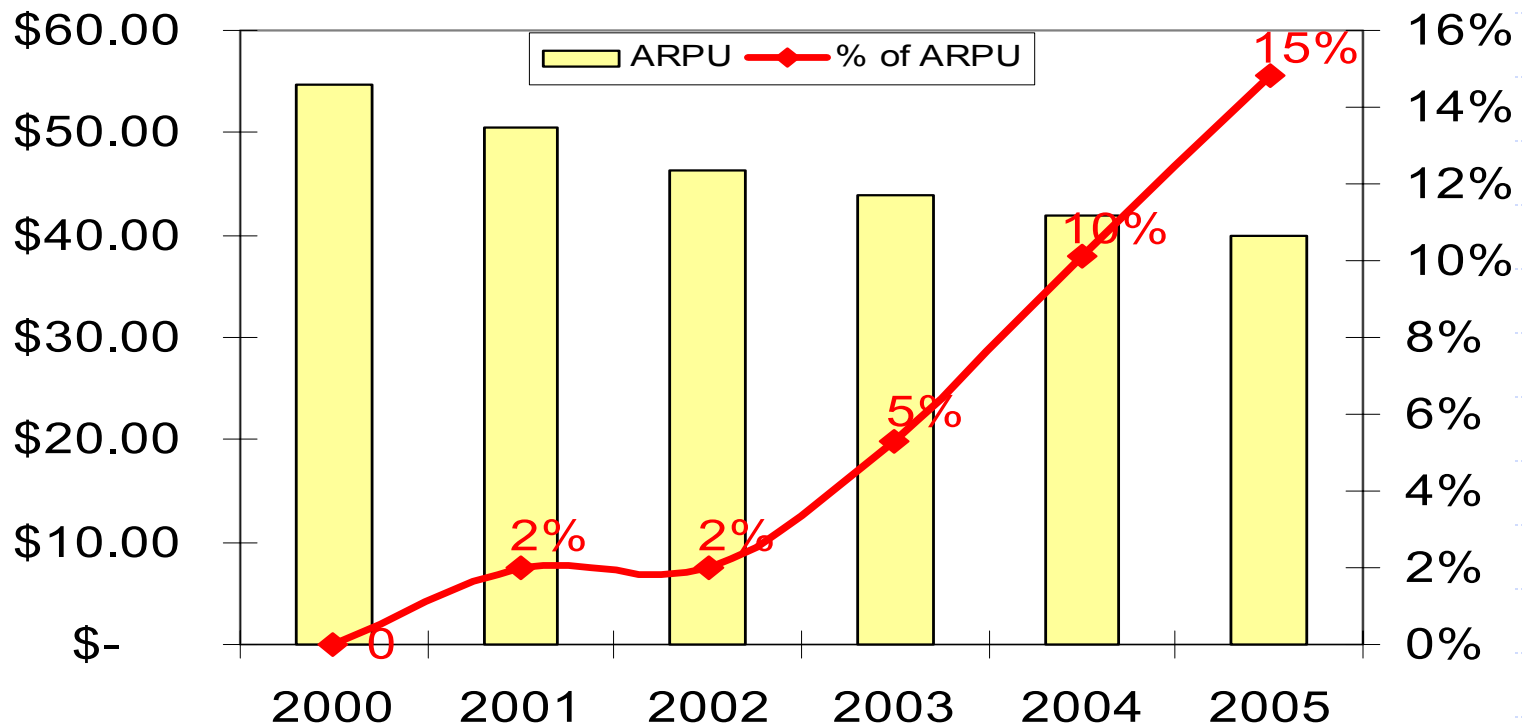
# Technology Transition

- Assess the cost of operations
- Reduce the cost of operations
- Plan for customer migration
- Plan decommissioning

# Some Ideas to Consider

- Assess & Optimize your Operational Needs
- Implement Advanced Features/Applications
- Share Network Platforms
- Use Refurbished Equipment
- Use LNP to your Advantage
- Implement Price Plans like Leap & Metro
- Consider Strategic Business Alliances

# Data ARPU as a % of Total ARPU



Source: Goldman & Sachs, Morgan Stanley, A.T. Kearney Analysis

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# Mobile Market Performance in Selected Countries

Country	Number of Players	Penetration (%)	MOUs	Revenue per Minute (\$)	Data (% of ARPU)
<b>Mobile Party Pays</b>					
USA	6+	54	557	0.10	3
Canada	4	41	296	0.12	4
Hong Kong	6	95	380	0.07	N.A.
Singapore	3	82	231	0.11	14
<b>Calling Party Pays</b>					
UK	5	91	147	0.22	17
Germany	4	79	75	0.33	17
Italy	4	99	116	0.25	13
France	3	68	174	0.23	11
Spain	3	94	109	0.29	12
Finland	3	92	243	0.18	13
Japan	3	67	161	0.31	24
South Korea	3	70	311	0.10	14
Australia	4	78	176	0.20	13

Sources: Michel Morin and Linda Mutschler, *Global Wireless Matrix 4Q03*, Global Securities Research, Merrill Lynch, Mar. 19, 2004.



# Migration To Wireless Data

## Service

Voice

Data

Wireline

Incumbent Operators

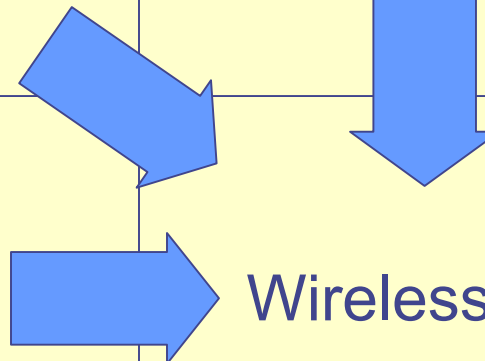
Data Carriers/  
ISPs

Access

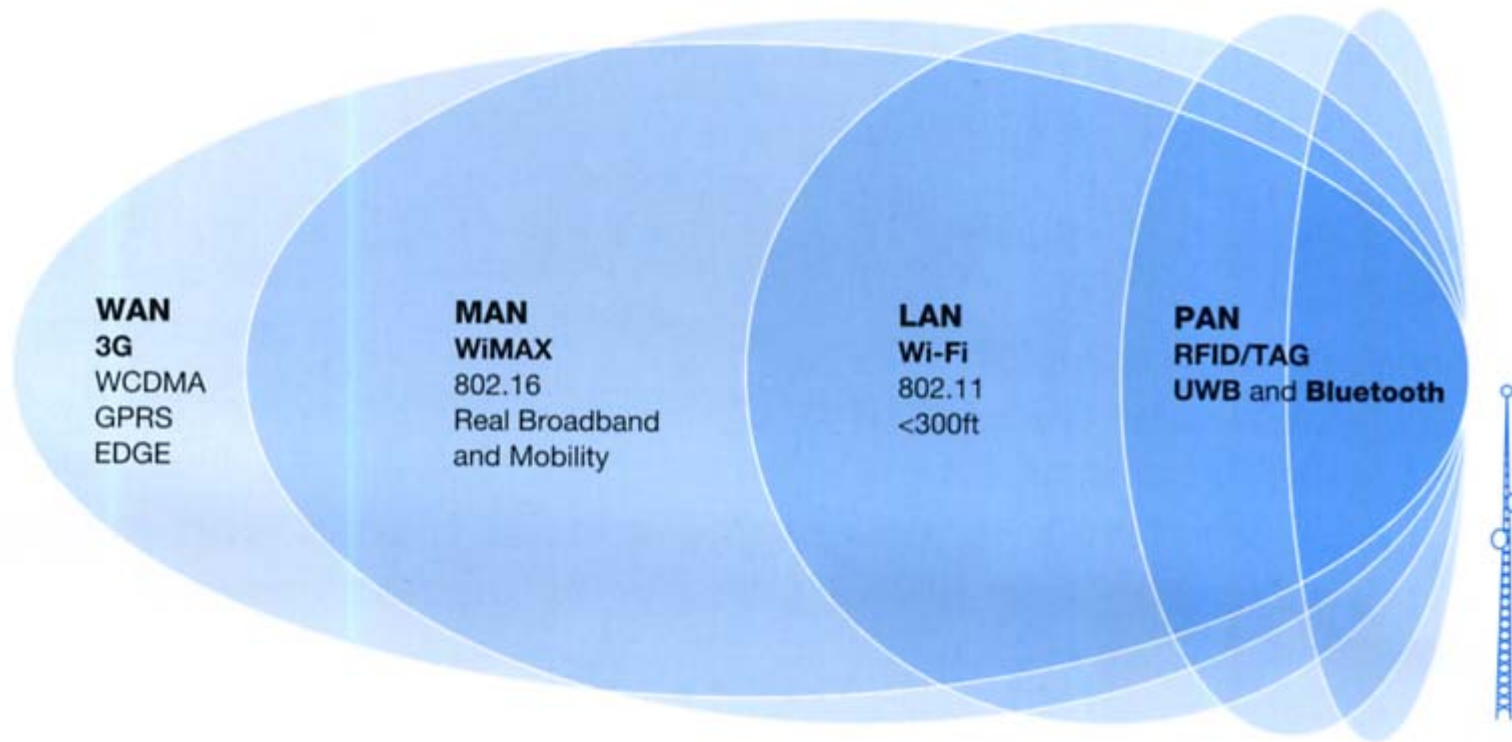
Wireless

Wireless Carriers

Wireless Data



# A World Without Wires



Users always stay connected, wherever they go