Why One Cannot Rely on the Secondary Market for PCS

- Typical vision of market:
  - Many relatively undifferentiated buyers
  - No transactions costs
- The PCS secondary market will be different

The PCS Secondary Market

- Small numbers bargaining with complex players
- A limited number of firms in smaller number of consortia
- Even with simple motives, no experimental evidence or experience that would enable us to predict that the secondary market negotiations will result in economically efficient aggregation quickly, inexpensively or with certainty
- Firms/consortia have complex motives -- they compete and cooperate in a variety of converging industries
  - Rivalrous or anti-competitive behavior
  - Speculators
- Likely high transaction costs; time-consuming negotiations

Conclusion

- Aggregation can lead to:
  - Unnecessary inefficiencies
  - Other undesirable outcomes
  - Delays in providing service
  - High secondary market transactions costs
- These problems can be avoided or mitigated by directly auctioning off larger blocks

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30 MHz Minimum Channel Allocation is Essential

- **Northern Telecom's vision of PCS:**
  - mass market wireless - penetrations in excess of 10% of pops
  - multimedia services incorporating evolving technology and advanced services
  - integration and interworking of voice, paging, 9.6 data, 56/64 data, >>64 data
  - low end user cost to stimulate mass market demand
- **Northern Telecom has always maintained that channel allocations must be sufficiently large to support:**
  - getting started and growing while spectrum sharing with incumbent microwave users
  - Multiple applications
  - Large scale economies and spectrum efficiencies
  - Technologically robust service and an attractive investment opportunity
  - The capacity, quality and variety of voice, data and broadband services envisaged, some which may consume bursty data for a single application

NTI believes 30MHz Allocations Minimum for US PCS Industry Success
- to achieve the vision of PCS and US global leadership
- to create viable PCS business opportunities for large to small players
- to achieve the rapid industry formulation

Y10

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The PCS Market Segments

5m Subs → 15m Subs → 30m Subs

1995		2000
• High Quality Cellular • Paging/Messaging • Mobile Data • All Sizes of Businesses • High End Consumers	• Business Users (Voice + PDA) • Corporate Networks • Business Applications - Fleet/Dispatch - Data Acquisition - etc. • Telemetry (Auto Sensors) • Consumers - 2nd line	• Mass Market • Business (most users) • Multimedia - Video Conf. - Info Sharing - Game Boy • Device to Device

Reduction to 20Mhz will significantly delay the genesis of the industry

Deployment: 30 vs 20 MHz; 5% penetration

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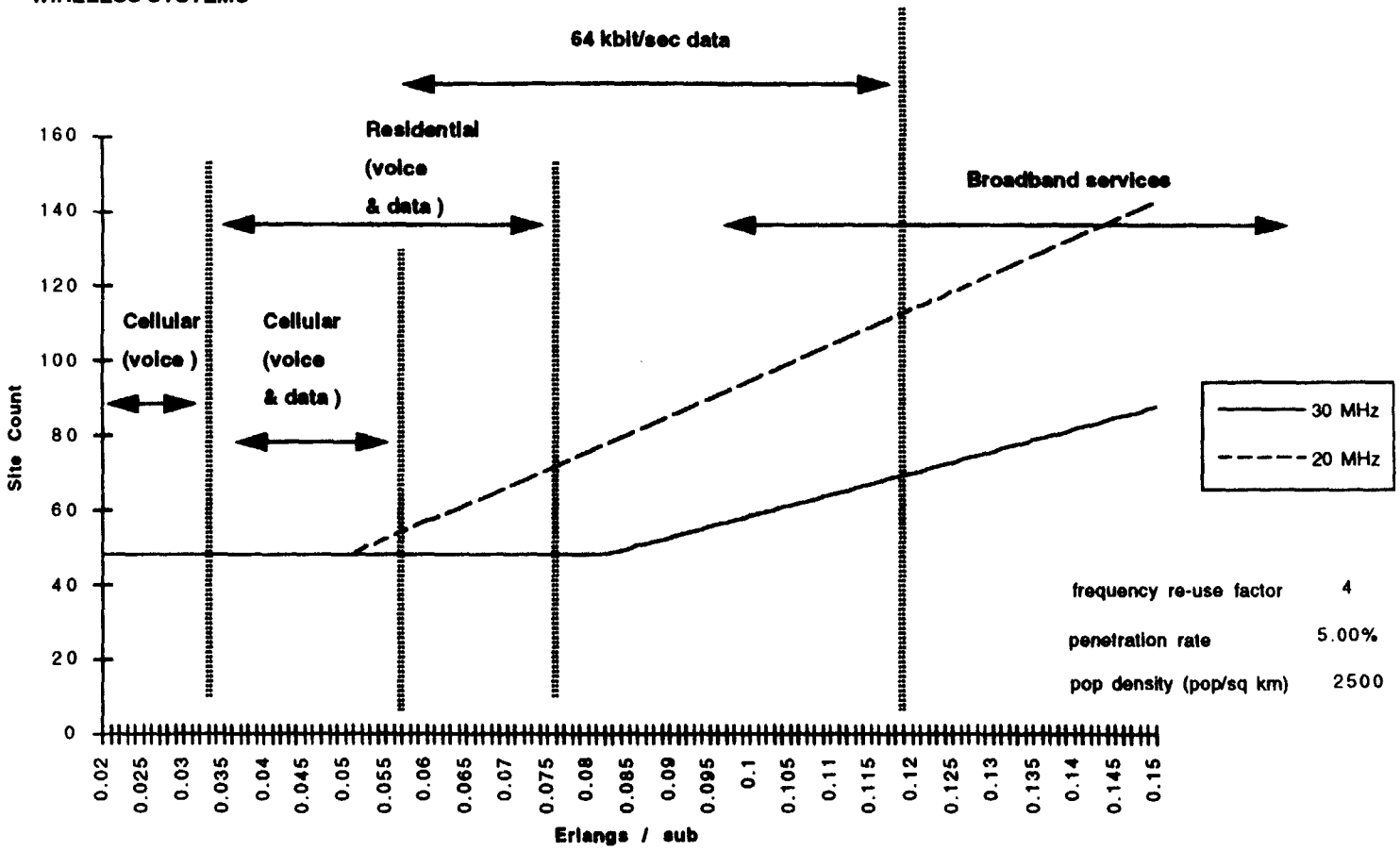
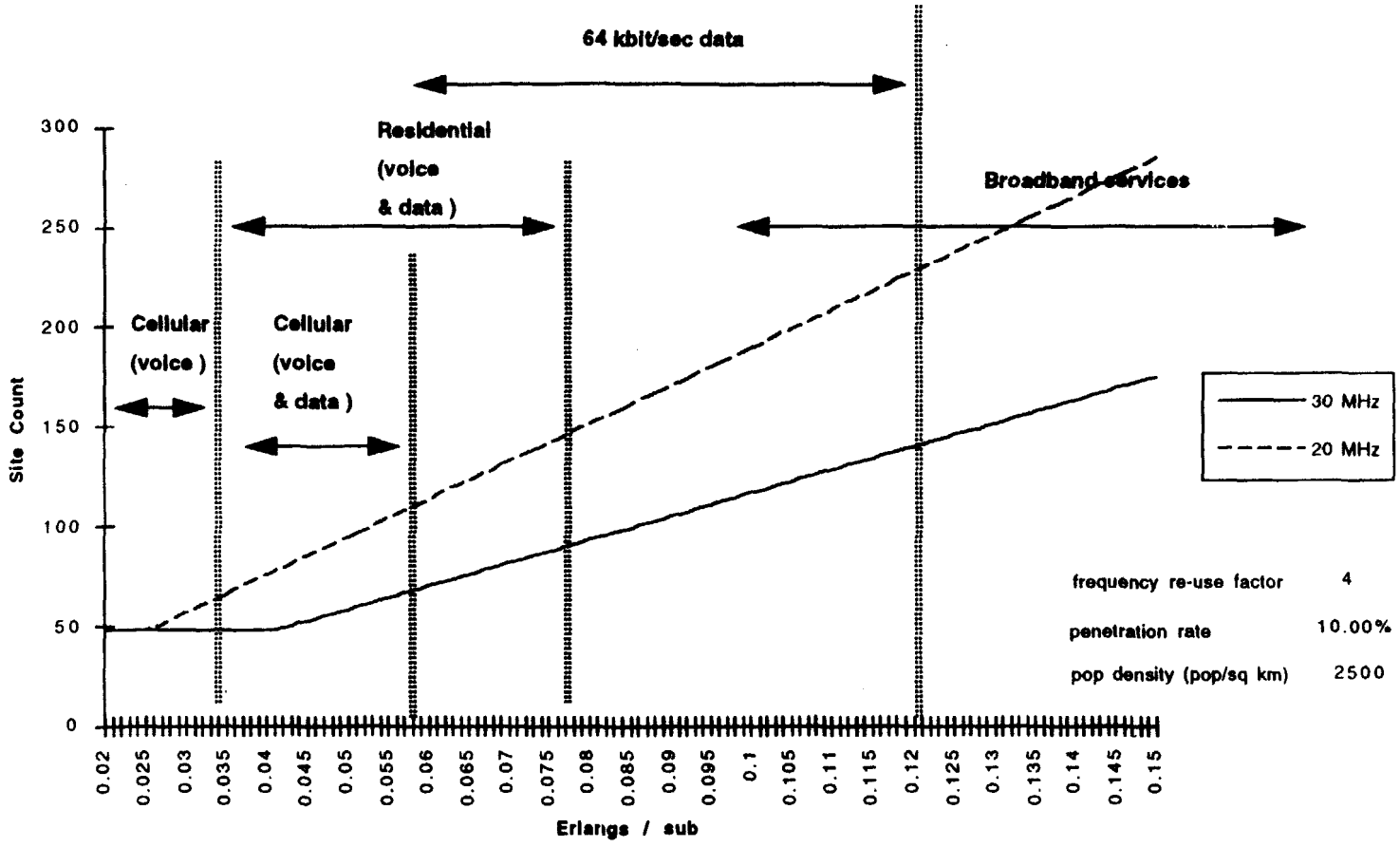


Deployment: 30 vs 20 MHz; 10% penetration

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