

Market Analysis of 2.4GHz High Rate Physical Layer Interoperability with Existing 802.11 (1-2Mbps) Physical Layers

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Representation for Market Analysis for 2.4 GHz High Rate
PHYs Interoperability with Existing 802.11 1-2 MB/s LANS

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Objective

- Understand the decision factors for determining purchase of a wireless LAN product
- Vertical vs horizontal markets- applications
- Target end-users and MIS managers in the SOHO market
- Mobile professionals -- mix of Laptop and Desktop users
- Target end-users with basic understanding of LAN and wireless LAN technology

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Marketing Research

- Focus Groups: Sessions held in 4 cities across the US. (Dallas, San Francisco, Cleveland, Boston)
 - Conducted in June 1977
- Two (2) per city 1 hour sessions
 - 15 people per group using an outside market research firm
- Questionnaire Survey
 - 20 questions telephone survey
 - Population sample size 250

Focus Group and Survey Questions

- **Fifteen (15) key questions**
 - **Killer applications (I.e. intranet/internet access)**
 - **Optimum data rate**
 - **Cost of a WLAN card**
 - **Software support**
 - **Desired range of wireless connectivity**
 - **Standards based solutions I.e 802.11**
 - **Interoperability - backward compatibly**
 - **Data security**
 - **Laptop battery life**
- **Ranking the importance of each**

Hypothesis Test Results

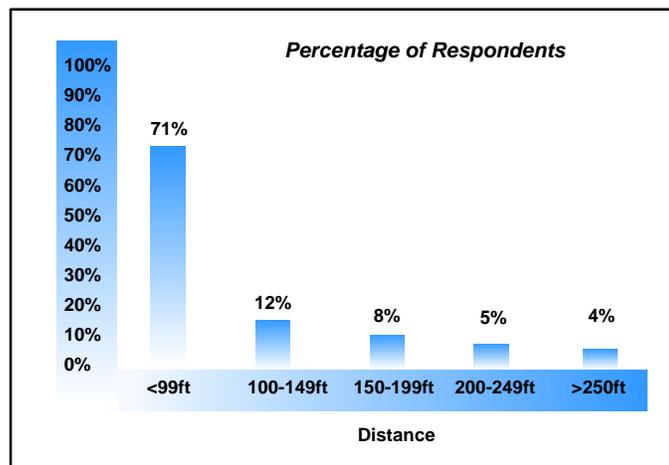
- Factors inhibiting use of wireless LAN
 - Cost too high compared to wired ethernet
 - Data rates less than 10Mbps
 - No standards, tied to proprietary solutions

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Test Results (Scaling Analysis)

Desired Distance Between PC and Peripheral

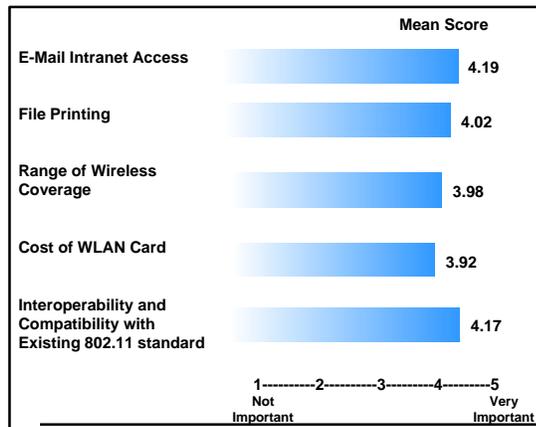


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Test Results (Scaling-Mean Analysis)

Top Five (5) Importance Factors In Decision for Purchasing 10Mbps WLANs



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Findings

- Ethernet speeds (10Mbps) was optimum
- Multiple PHYs an issue
- 5 Important critical factors
- Focus on mean scores between 4-5 (important)
- Interoperability and compatibility with existing 802.11 standard

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Conclusion and Recommendation

- Interoperability and compatibility with existing 802.11 PHYs is *equally* important in the decision making process of high rate PHYs
- Key decision factor
- Gear shift from high rate to 1-2Mbps
- Explore ways to adopt
- Pro - Con analysis

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