



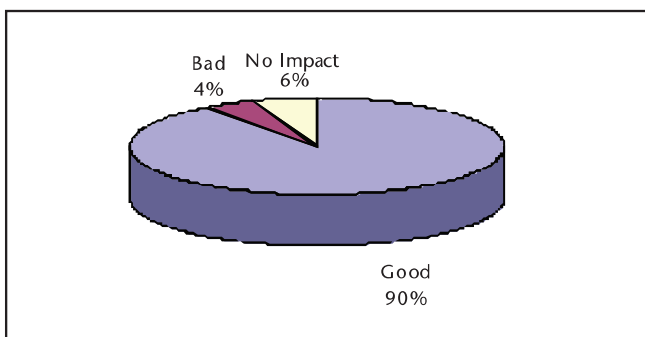
# What Do Telecoms Executives Really Think About WiFi?

By John Yunker ■ Pyramid Research

Recently, Pyramid conducted a survey of nearly a thousand telecoms executives in more than 70 countries. From mobile operators and fixed operators to consultants and investment bankers, we wanted a global view of how WiFi is perceived by the telecommunications industry. Some of the answers fell in line with our expectations, while others were eye opening. Here are a few of our findings:

- **WiFi is a truly worldwide phenomenon.** WiFi has achieved near-global recognition in a remarkably short period of time. Even telecoms executives in developing markets are keenly aware of the technology – and are anxious to learn how it will fill their needs. But awareness should not be confused with understanding. While many executives surveyed recognize the term "WiFi", many have yet to actually use it firsthand.
- **WiFi is good for the telecoms industry.** Nine out of ten telecoms executives believe that WiFi is a positive development for the telecoms industry – dispelling the myth that the industry fears WiFi. Only 4% of survey respondents felt that WiFi is a negative development.

*Exhibit: Do you think WiFi is good or bad for the telecoms industry?*



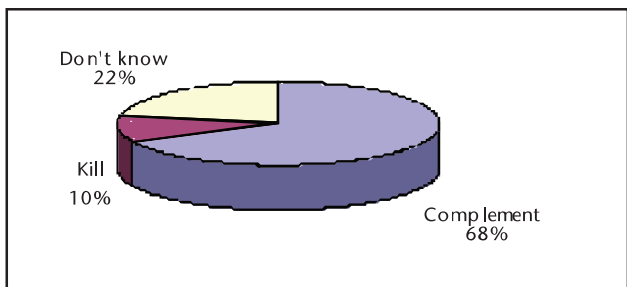
Source: Pyramid Research.

- **Currently, WiFi is still too expensive.** Nearly half of all executives surveyed would not pay more than US\$20 per month for WiFi access, and there is only one region of the world in which WiFi is, on average, less than \$20 per month – Latin America.
- **Security is not a major obstacle to adoption.** While most telecoms executives are "somewhat concerned" about WiFi security, only a small percentage are "very concerned." This

indicates that WiFi adoption will accelerate as long as reasonable security precautions are implemented.

- **More than half of all telecoms companies are already using WiFi internally.** From AT&T to Verizon, WiFi is fast becoming a fixture within the office. Qualcomm alone has more than 200 access points on its San Diego campus. North American companies are the most aggressive adopters of WiFi so far, closely followed by Europe and Asia. Even in emerging markets, a significant number of companies have deployed (or are testing) WiFi hotspots internally.

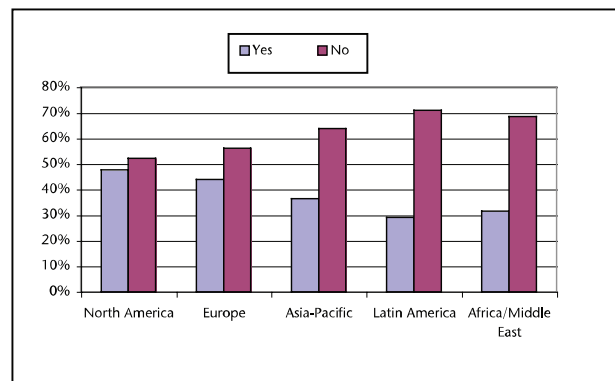
*Exhibit: Will WiFi complement or kill 3G?*



Source: Pyramid Research.

- **WiFi complements 3G.** Based on what telecoms executives have to say, 3G and WiFi are complementary — not competitive — services.

*Exhibit: Does your company use WiFi?*



Source: Pyramid Research.

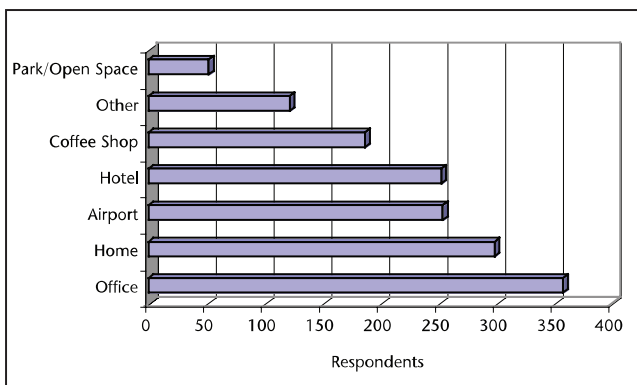
When we asked for more information on the Wi-Fi/3G debate, we received a wide range of responses—more than 500 in all. All responses are included in the report appendix in Excel format. Here are a few responses that caught our eye:

**"Nearly half of all executives surveyed would not pay more than (U.S.) \$20 per month for WiFi access..."**

- *I'll use WiFi when I'm at home or the office and 3G while I'm away.* --Consultant
- *WiFi complements 3G in locations where a customer does not require mobility (e.g., in a coffee shop) and allows a much higher bandwidth for access.*--Operator
- *It CAN complement 3G if the telcos demonstrate some leadership. It could be "3G light" - low start-up or tasting cost. A great way to hook people on digital data.*- Operator
- *3G will be more for residential users while WiFi is more for the business segment.*- Financial Company
- *I believe that WiFi will help 3G by acting as a catalyst for user adoption of broadband wireless services. Inevitably, though, it will delay its (3G) arrival as it will deliver a key percentage of its service offering at a lower price point.* - Vendor

• **Executives primarily use WiFi in private, not public.** Although so much of the talk about WiFi centers on public networks and their elusive business models, the largely private home and office networks are more popular. This suggests that the longer-term success of WiFi is not so closely tied to a successful public access business model.

*Exhibit: Where have you used WiFi?*



Note: Respondents were asked to check all locations that apply.  
Source: Pyramid Research.

• **Operators will turn to the "usual suspects" for WiFi deployment and management.** We focused in on just those responses from operators to better understand how they viewed WiFi in general and WiFi vendors in particular. We found that op-

erators are likely to first turn to their established vendors, such as Alcatel, Siemens, Lucent and Nortel, when looking for assistance with WiFi equipment, deployment and management. As shown here, few "pure WiFi" vendors are well known by the majority of operators around the world.

• Exhibit: Operator Awareness of WiFi Vendors

| Vendor           | Operators Aware of Vendor | Percent |
|------------------|---------------------------|---------|
| Alcatel          | 161                       | 76%     |
| Cisco            | 158                       | 74%     |
| Siemens          | 149                       | 70%     |
| Nortel Networks  | 148                       | 69%     |
| Ericsson         | 143                       | 67%     |
| Lucent           | 141                       | 66%     |
| Nokia            | 140                       | 66%     |
| Intel            | 137                       | 64%     |
| Motorola         | 131                       | 62%     |
| Microsoft        | 128                       | 60%     |
| Toshiba          | 121                       | 57%     |
| Apple            | 120                       | 56%     |
| Avaya            | 113                       | 53%     |
| D-Link           | 79                        | 37%     |
| Linksys          | 71                        | 33%     |
| Netgear          | 62                        | 29%     |
| Proxim           | 54                        | 25%     |
| Symbol           | 38                        | 18%     |
| Alvarion         | 37                        | 17%     |
| Pronto Networks  | 35                        | 16%     |
| Belkin           | 30                        | 14%     |
| Flarion          | 29                        | 14%     |
| Buffalo          | 27                        | 13%     |
| SMC Networks     | 25                        | 12%     |
| Aperto Networks  | 22                        | 10%     |
| PCTEL            | 22                        | 10%     |
| Navini Networks  | 21                        | 10%     |
| Vernier Networks | 21                        | 10%     |
| Bluesocket       | 19                        | 9%      |
| Trapeze          | 14                        | 7%      |

Source: Pyramid Research.

Ultimately, we believe that the major telecoms vendors will make strategic acquisitions to bolster their WiFi portfolios. The recent acquisition of Linksys by Cisco marks the beginning of a trend we believe will accelerate in 2004. Just as operators increasingly view WiFi as part of their "portfolio of services," large vendors will need to respond in kind to support such a portfolio.

In our survey, we also asked operators what vendors they had purchased from. We then compared awareness with actual

**"...we believe that the major telecoms vendors will make strategic acquisitions to bolster their WiFi portfolios."**

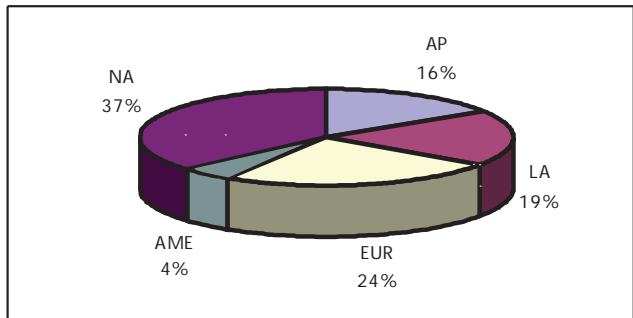
sales to derive a "vendor conversion rate." Although the results are included in the report, we can say that Linksys emerged as the most successful pure-play WiFi vendor.

#### About the Survey Respondents

Survey respondents were fairly evenly split among the

world's major telecoms markets.

*Exhibit: Survey Respondents by Region*



Source: Pyramid Research.

Survey respondents included a wide range of job titles, from CEO to marketing director to sales manager. A significant percentage of respondents represent senior telecoms management positions. ■

#### About the Author

*John Yunker is a wireless analyst at Pyramid Research (www.pyr.com), a global telecommunications research firm. His most recent report is "WiMAX and Wi-Fi: Unwiring the World.." He welcomes feedback at jyunker@pyr.com.*



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