

Wireless Local Area Networks

Networks of the Internet of Things Strategic Market Analysis 2012-2016

New Report Examines WLAN Use and Opportunities for the Internet Of Things

Sensor And Device Network Technologies, Standards, Applications, Players And Market Potential Addressed

Our research examines the technologies, standards, applications, players and anticipated market growth for mid-range wireless networks. We also examine the factors that have contributed to WLANs success and future considerations for this segment of the Internet of Things (IoT).

The WLAN market is characterized by its relatively calm atmosphere and in stark contrast to the WPAN market, this cohesion has helped to drive innovation and dominance. Based on our analysis, Harbor predicts 802.11 enabled technology will grow from 1.4 billion shipments in 2012 to over 3.6 billion shipments by 2016. A few factors will contribute to this growth, but the innovative capacity and efforts of the IEEE 802.11 subcommittees b, g, n, and ac have helped to ensure the functionality and applicability of 802.11 technologies are consistently expanded.

Key related points from the analysis include:

- » Internet Protocol directly to the device has become an integral element in advanced M2M connectivity and thanks in part to the rapid growth of smartphones and tablets and the more advanced IoT solutions that require streaming or large file transfers, IP will continue to define success and growth for the WLAN market
- » Architects of 802.11 standard understood how a 'generalist' approach can help ensure stable market share - this has freed them up to expand the functionality of 802.11 technology, with 802.11s Mesh WiFi, for instance; certain companies can learn from their success
- » Being backwards-compatible has greatly expanded the breadth of 802.11 and given investors and end-users comfort to know that the technology they choose to pursue will not be obsolete in the near future
- » WLAN is currently actively encroaching on WPAN technologies; without increased interoperability, WLAN technology will ultimately win-out and relegate WPAN technologies to niche applications

IEEE standards committees and the WiFi Alliance are currently repeating the benefits from the decisions they made years ago. The increased clarity, trust and innovative capacity these activities has allowed WiFi to , but at the 'edge' of WiFi's applications comes interesting overlaps that are wholly unique for the Internet of Things.

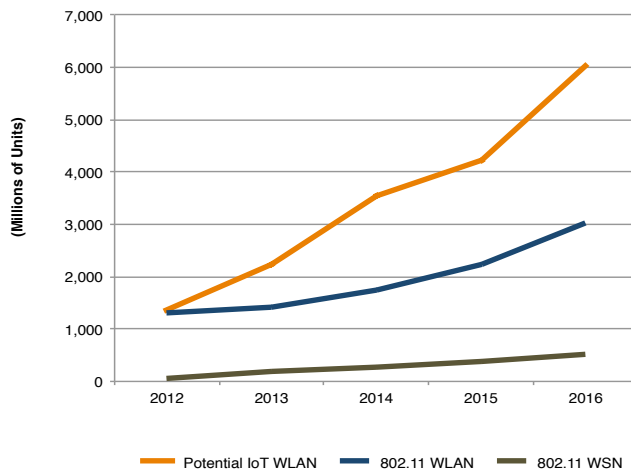
Key Questions Addressed By Report

Our analysis and research is focused on understanding the strategic market development implications within the emerging Internet of Things (IoT) arena as they relate to WLAN networks, including:

- » What are the significant challenges users, product OEMs, service providers and silicon players face in this arena?
- » How many WLAN enabled devices will there be in each market segment using which technologies? How have advancements in the technology expanded applicable use-cases for WLAN technology?
- » Who are the key players in the WLAN marketplace and how are they positioned to engage in this enormous opportunity?
- » Will the WPAN sector, which holds so much promised expansion opportunity, open up to WLAN technologies?
- » What are the issues facing incumbent WLAN players? What strategies can these players, and new entrants, employ to ensure success?

WLAN Market: Untapped Potential

As a part of our report, Harbor Research has concluded that with deliberate action over the next three to five years, WLAN technologies could address as many as 1-2 billion incremental nodes.



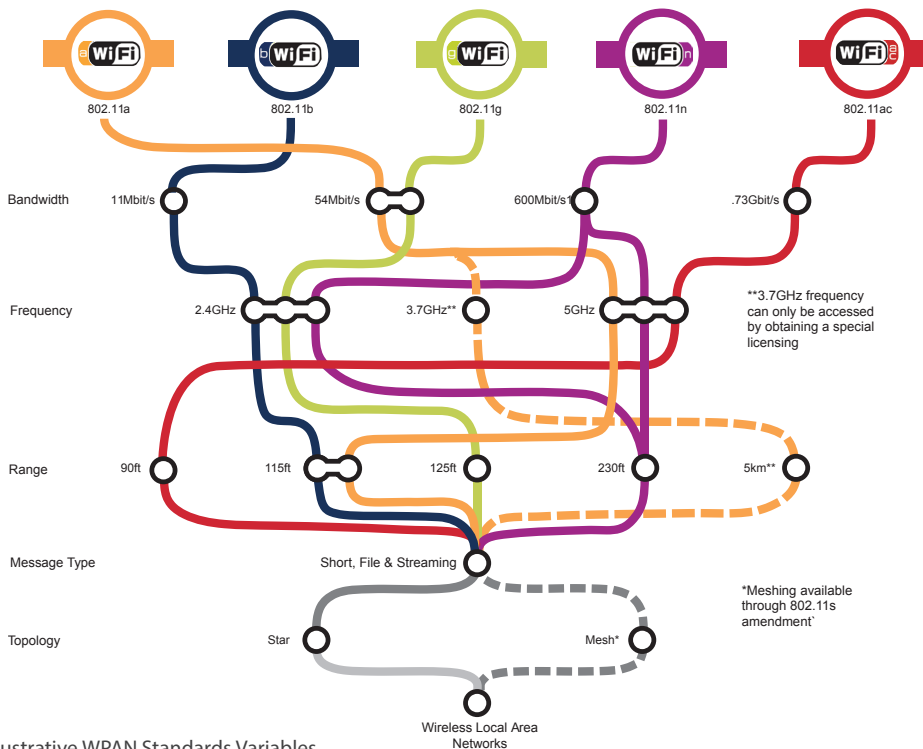
WLAN Encroaching on WPAN Technologies

As wireless sensor technologies will soon become the undeniable force driving the Internet of Things, the importance of wireless technologies will move to the forefront of technical considerations and insightful managers will fully understand the strategic implications of these technologies.

It is critical to consider the technical requirements and longevity of the technology, especially when considering IoT applications and Smart Services functionality. Choosing the “right” and more importantly the “winning” technology will be one of the most important decisions that suppliers and OEMs will make in this next chapter of the IoT market development. Users and product OEMs involved in designing and deploying WPAN technology are currently on the receiving end of this complex and fractious market, many trying to understand the path they should take which is often unclear and cluttered with misinformation about various standards.

WLAN Technology: Internet Protocol Impact

WPAN and WLAN technologies’ importance in the IoT cannot be overstated. When designing strategies for new and innovative smart systems, the ability to integrate and connect with other systems becomes paramount. Internet protocol-enabled communication, bandwidth, battery life and expected obsolescence are just a few of the factors one must consider when making this decision.



Illustrative WPAN Standards Variables

Harbor Research Internet of Things Market and Quant Model

Harbor’s extensive IoT market model provides strategic insight for device OEMs, component OEMs, network service providers, system applications providers, service providers, product OEMs, investment firms and associations.

The model maps the world of networked devices down to the silicon, operating system and network infrastructure level. We do this by aggregating the average selling price, shipment values and services value generated from over 400 device types and segments. Such granularity gives unique insight into the underlying forces shaping the largest opportunity in the history of business.

Related Reports

This report is the first of a four-part series that explores all network technologies associated with the Internet of Things. Other reports include:

- » Wireless Personal Area Networks of the IoT;
- » Wireless Wide Area Networks of the IoT;
- » Wireline Networks of the IoT

The scope of our research and analysis covers the significant technologies, applications, players and major opportunities informed by smart systems.

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In addition to our research reports, we provide research and retainer services aimed at supporting client market and business development goals. Our program consists of research services, creative interactions and on-going support. Clients are given the ability to tailor their own package to suit the goals of their organization.

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