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PtMP Wireless Market for small cells and LTE

By Elias Aravantinos

3508 30th ave, New York 11103 USA

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Questions Answered by This Report

- What frequency bands does each major PtMP backhaul vendor support?
- What size will the PtMP and microwave market be by 2017?
- What are the PtMP wireless backhaul equipment offerings by the significant vendors in the industry?
- What are the strengths and weaknesses of each vendor's products?
- What are the opportunities and threats for the major vendors?
- What are these vendors' plans going forward?
- What is the maximum throughput achieved for a single channel with each PtMP technology?
- What techniques have vendors developed in order to increase throughput?
- How are microwave vendors solving the packet synchronization issue?
- How does PtMP equipment manage TDM and packet traffic at the same time?
- What functionalities do PtMP vendors add to their solutions in order to add intelligence and reliability?
- How do vendors manage network, links and remote units?
- What are the highly reliable vendors' products (Mean Time Between Failure) in the wireless backhaul space?
- How much growth did the PtMP microwave market experience in 2011-2012?
- What kind of redundant solutions are offered per link?
- What were the market shares of the most important microwave vendors in Q1 2011?
- What was the regional breakdown of microwave shipments in 2011?
- Which frequency bands generated the most revenue in 2011?
- Which frequency bands will be most important in the coming years?
- How will SON enhance the small cells backhaul from an NLOS perspective?
- What were the most used equipment configurations during 2011 (split mount, all-outdoor)?
- ***And much more!***

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1. Executive Summary

At the end of 2011, over 11% of the installed backhaul market worldwide will be Point-to-Multipoint with the remaining percentage Point-to-Point

Mobile operators' focus on backhaul, driven by their need to add more capacity, resulted in an 6% increase in Point-to-Multipoint (PtMP) equipment shipments between 2011 and 2012. Although mobile operators around the world are still deploying predominantly PtP wireless technology, there continues to be a significant number of PtMP deployments, especially in emerging markets and urban areas.

ExelixisNet expects the wireless PtMP equipment market to grow 5-fold by 2017

Although the PtMP market is very complex because of the variety of technology interpretations and frequency bands used, it is expected to grow 5-fold between now and 2017. Beyond 2014, the combination of faster activation of LTE depoyments in emerging markets, and the mass deployment of small cells in more developed markets will contribute to faster market share growth for PtMP as a backhaul technology.

By 2017, the Non-Line of Sight (NLOS) licensed PtMP equipment revenues will reach 15% of the total PtMP backhaul market

During 2011-2012, many NLOS vendors (for example Taqua, BLiNQand RADWIN were field testing new PtMP products in the TDD spectrum bands. Regulatory aspects including the semi-licensed spectrum decision remain a drawback no matter the low cost of spectrum

Africa is driving the PtMP microwave market during the global downturn

Africa has been the only region in the world where LOS PtMP microwave shipments continued to grow throughout 2011 but also 2012. More than 50% of CBNL sales depend on the African region where new regions need to be developed and PtMP deployed.

Middle East doubled revenues from H1 to H2 2012

Middle East revenues doubled from between H1 2011 and H1 2012, but this increase was not enough to match or surpass Africa in an annual value. The Middle East market surpassed Africa's presenting a strong H1 2012 over H1 2011 holding a market share 33% more than Africa's.

Intracom Telecom gained market share in Africa during 2012.

Measured by shipments Intracom Telecom managed to increase market share between the first and last quarter of 2012 versus Cambridge Broadband Networks, gaining equal market share in the African region

26GHz dominates shipments by frequency band

Frequencies at 26GHz bands have been in high demand during 2011-2012. Shipments in this range grew during 2011 (27% quarter-over-quarter between Q1 and Q4). Equipment shipments in this band are expected to increase, since it attracts the most concentration due to the volume of licensed bands that operators hold, such as Mobile Telephone Network (MTN) concentrated in the regions of Africa (South Africa) and the Middle East (UAE), and some in Europe, (UK, and Portugal).

Increasing innovation and efficiency in radios and antennas

Traditionally PtMP vendors highlight adaptive modulation, bandwidth management and statistical multiplexing features. New entrants are highlighting new features including Dynamic Bandwidth Sharing and interference management.

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New entrants are favoring TDD systems

The majority of the installed base of PtMP systems are FDD but new entrants are using TDD to address new traffic profiles and a wider range of markets. The FDD systems refer strictly to bi-directional voice service since these occupy a symmetric downlink and uplink channel pair. However, many operators are opting for TDD systems that provide the ability to define the percentage of Upload versus Download traffic (asymmetric). This can be especially useful for specific uplink-centric applications such as video surveillance where the application produces traffic primarily in one direction. Most of the NLOS products coming onto the market operate in the Local Multipoint Distribution Service bands (unpaired licensed bands) and are TDD-based, such as those from vendors Taqua, BLiNQ Networks and Airspan

NLOS and microwave both reduce the time to deploy a cell site to less than an hour meeting operators' need for quick outdoor installations

Whether we refer to NLOS or microwave technology, the time-to-deploy for a new connection or even a cell site is significantly reduced to a few hours. The turnkey feature offered by many vendors such as Bluwan and BLiNQ Networks saves significant time, since the terminals are pre-configured and preloaded with all the necessary software. Intracom Telecom introduces a new advanced antenna auto-alignment system for its Small Cell Outdoor Product, that is expected to solve the time consuming process of configuring the antenna's direction

New Outdoor solutions from LOS microwave vendors are ready for trials

Most PtMP vendors are paying special attention to the emerging small cells backhaul requirements and plan to tap into this huge potential market. Key small cells features are small size, lightweight products deployed outdoors that are able to withstand harsh weather conditions. Intracom Telecom has fully adjusted its product portfolio including two versions of WiBAS, one split mount and one fully outdoor and also one fully Outdoor Small Cell Backhaul solution Ideally, all this hardware should be flexibly mounted on any street level deployment (light pole or rooftop), with intelligent and independent power features (Power over Ethernet), support for all weather conditions standards, for availability in 30-50 mm/hr rain and temperatures ranging from –45°C to + 55°C.

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