MIMO-based Wireless and Wireline Communications Systems - Technologies, Markets and Applications

Description: This report researches advanced technologies and markets for wireless and wired communications systems that utilize MIMO - Multiple Input/Multiple Output structures – to enhance their performance.

Users’ demand for more efficient networking brought to life many technological innovations. One of them is MIMO, which became very popular in wireless systems - almost all recent and future 3GPP standards use (or will be using) variations of such a technique. MIMO also can be used in wireline systems.

This report is based on the Practel analysis of MIMO-based communications systems, their technologies and markets specifics. Particular, the following industry standards that utilize MIMO have been considered:

- 3GPP LTE
- IEEE 802.11n
- IEEE 802.11ac
- IEEE 802.11ah
- HomePlug AV2
- ITU G.hn.

The goal of this report is to characterize MIMO advantages and specifics for each standard. It also addresses market characteristics of discussed technologies. Report concentrates on corresponding industries players and their products.

MIMO characteristics, structures and types are also addressed and compared.

The report also contains a survey of 802.11ah-related patents.

The report is written for a wide audience of managers and technical staff that involved in the design and implementation of advanced communications systems.

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