

Report
On
Mobile WiMax Technology
(Publication Year - 2004 to 2009)

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Hyderabad
India



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Research/ Academic Institutes

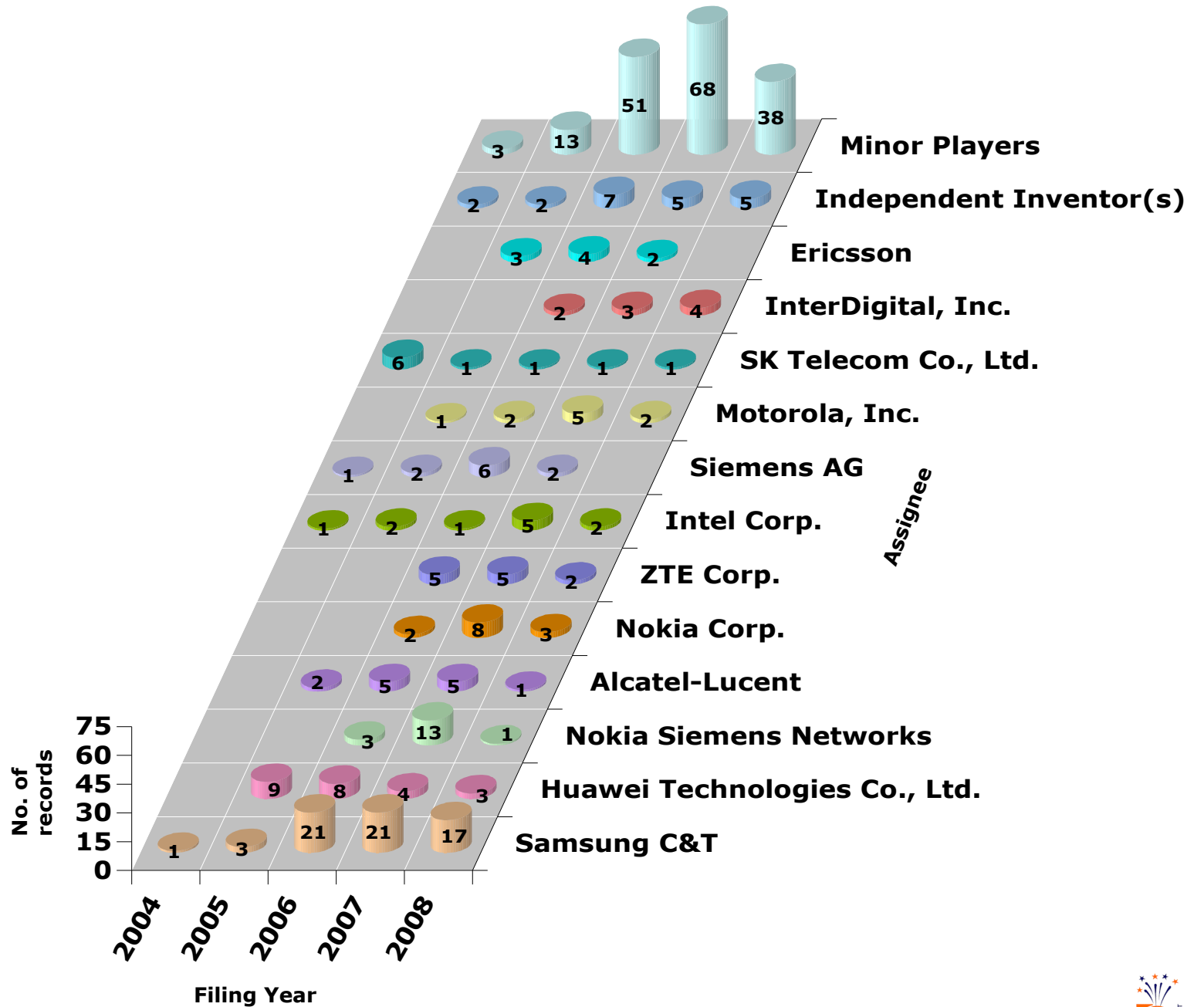
Research / Academic Institute	No. of records	Focus area
Electronics and Telecommunications Research Institute	4	Seamless data communication service without being affected by changes of wireless access environment in communication networks, based on mobile Internet protocol (IP); Selection of a telecommunication service mode in a mobile communication terminal when a user makes a call; Communication data receives by using a satellite communication network and a mobile communication network; Dynamic IP allocation method for providing seamless service during a handover in the IEEE 802.16e MAN (Metropolitan Area Network) system
Research In Motion Limited	3	Method for measuring at least one radio condition of radio access technologies; Connection migration methods and apparatus between wireless local area networks (WLANs) and wireless wide area networks (WWANs) for communication devices; Control of selection of communication networks for communications for mobile communication devices
Pohang University of Science & Technology	1	Method of performing a vertical handover between different networks in which a WiMAX (Worldwide Interoperability for Microwave Access) (or a WiMAX (or WiBro) (Wireless Broadband Internet)) network and a WLAN (wireless LAN) network are coexisted, based on media independent handover (MIH)
National Chiao Tung University	1	Method for OFDM/OFDMA wireless communication system using frequency-domain filtering to calculate the required correlation values which can drastically reduce the high computational complexity of the original theoretically optimal solution

Research Collaborations *

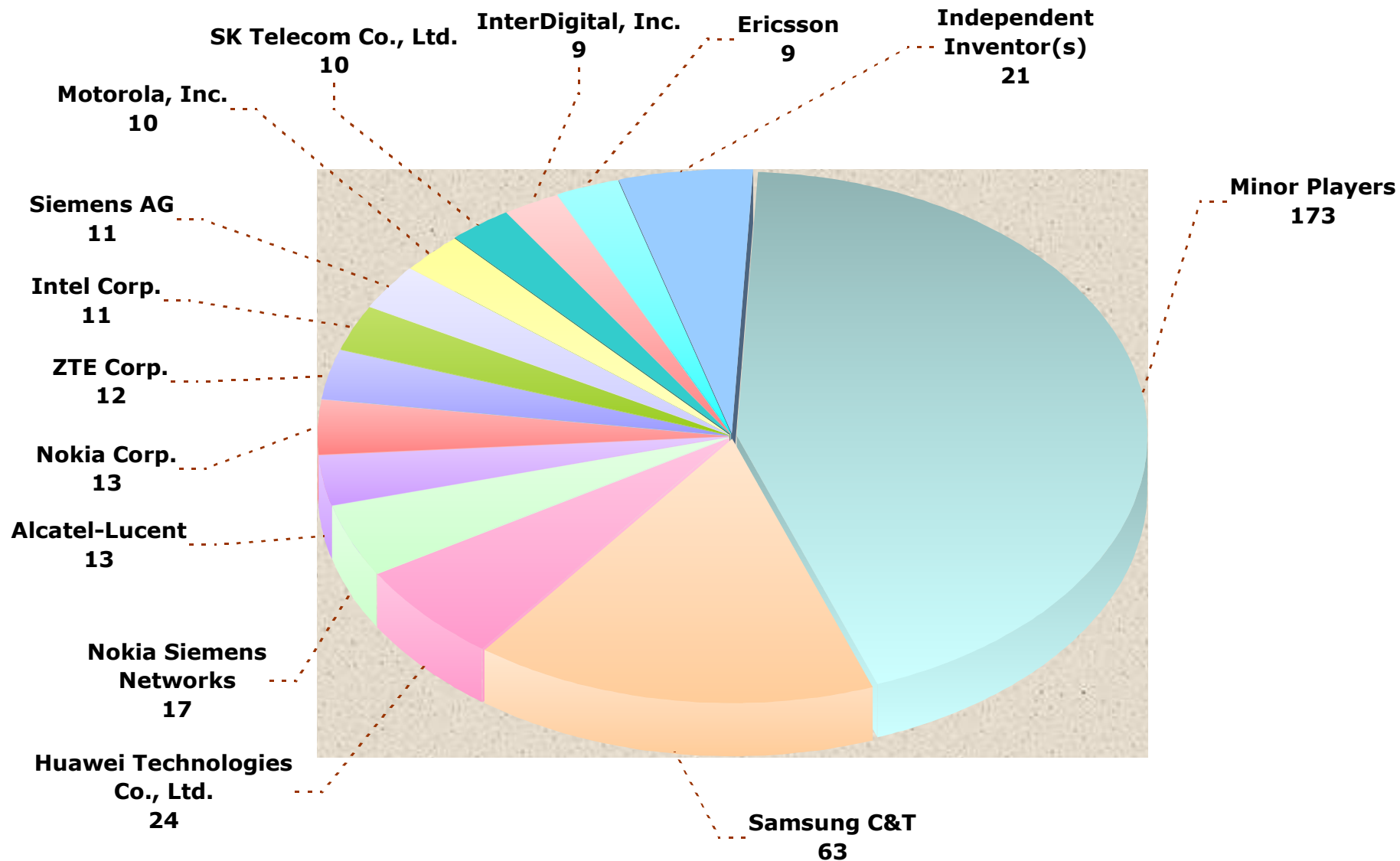
Collaborators	No. of records	Focus Area
Samsung C&T; Electronics and Telecommunications Research Institute; KT Corporation; SK Telecom Co. Ltd.; Hanaro Telecom Inc.	2	Forward packet scheduling method and apparatus in a base station of an IEEE 802.16 wireless man-based portable internet system; Accounting apparatus for mobile communication system
Electronics and Telecommunications Research Institute; Samsung C&T	2	Handover of mobile communication; Digital video recorder (DVR) connected to multiple cameras for efficient transmission of image data over a network
Samsung C&T; Republic of Korea	1	Dividing and buffering, by a serving radio access station (S-RAS) and an access control router (ACR), packets to be sent to the mobile station
Samsung C&T; Seoul National University Industry Foundation	1	Vertical handoff between a WLAN and a broadband wireless communication network

*As determined from assignees of patents

Patent filing trends based on Filing Year



Assignee-wise distribution of patents in Mobile WiMAX



Alcatel-Lucent, Intel, Cisco, Clearwire, Samsung Electronics and Sprint have formed open patent alliance



Focus of Key players

Assignee/ Applicant	Focus area of Technology
Samsung C&T	Handover Technology, ipv6, Mobile antenna Technology
Huawei Technologies CoLtd.	Interconnecting the broadband wireless network and the wired network
NOKIA SIEMENS NETWORKS	3GPP integrated wimax, Handover Technology, Roaming support in wimax networks
Alcatel-Lucent	Hand over technology, 3gpp-wimax interworking
NOKIA CORP	Multiple access support for communication system, Bidirectional communication device, Synchronization for OFDMA downlink signal

Most cited patents

Patent/ Publication	Assignee	Title	Year Issue d	Cited by	Self- citat ions	Cited by others	Avg Cites by Year
US20060111111	Intel Corp.	Method and system to support fast hand-over of mobile subscriber stations in broadband wireless networks	2006	5	2	Interdigital technology corporation (2)	1.6
US20060101116	Rittman Danny; Schnapp Moshe	Multifunctional telephone, walkie talkie, instant messenger, video-phone computer, based on WiFi (Wireless Fidelity) and WiMax technology, for establishing global wireless communication, network and video conferencing via the internet	2006	4	Nil	Arbriton Inc (1) Nortel Networks Ltd (1)	1.3
US20060246903	Samsung Electronics Co. Ltd.	System and method for voice data handoff between cellular network and WiBro/WLAN network in heterogeneous network environment	2006	4	2	Research In Motion Limited (1) Nortel Networks Limited (1)	0.8
US20070140163	Cisco Tech Inc.	System and method for integrated WiFi/WiMax neighbor AP discovery and AP advertisement	2007	4	Nil	Deutsche Telekom AG (1) Samsung Electronics (1)	0.5
US20060205432	Hawkins Jeffrey C; Haitani Robert Y	Control mechanisms for mobile devices	2006	3	Nil	Curitel communications Inc(1) Questox corporation(1) research Motion In limited (1)	1.1
US20060098614	Samsung Electronics Co. Ltd.	Apparatus and method for providing indoor and outdoor wireless access in broadband wireless access communication system	2006	3	Nil	Nokia Corporation (1) Huawei Technologies Co., Ltd.(1) Azalea Networks	1

Recent Non-patent literature

- Capacity estimation and TCP performance enhancement over mobile WiMAX networks.
- Mobile WiMAX Handover Performance Evaluation.
- Implementation of a smart antenna base station for mobile WiMAX based on OFDMA.
- Adaptive antenna selection at mobile stations for SDMA in WiMAX networks.
- Review of Handover Mechanisms to Support Triple Play in Mobile WiMAX.