

# WiMAX Forum® Industry Research Report

Review of November, 2009

## **About**

The WiMAX Forum® Industry Research Report is a monthly summary of primary and secondary research and news, provided by WiMAX Forum to the industry. It includes the latest updates on WiMAX Forum-tracked statistics, product certification, regulatory information, technology standards and more. This report will be published and made available on the WiMAX Forum website the first week of every month. If you have any questions or comments regarding the research contained herein, please contact Jonathan Singer, the WiMAX Forum's Market Research Manager at [Jonathan.Singer@wimaxforum.org](mailto:Jonathan.Singer@wimaxforum.org).

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## **Executive Summary**

- WiMAX Forum currently tracks 519 WiMAX Deployments in 146 Countries.
- WiMAX Forum profiled US operator Towerstream Visit the WiMAX Forum webpage to read all about it: <http://www.wimaxforum.org/resources/documents/marketing/casestudies>.

## **Global Deployment Update**

This section describes the current state of WiMAX deployments across the world. The data for this tool is delivered to us courtesy of Informa Telecoms & Media, and can be viewed online in more detail at [www.wimaxmaps.org](http://www.wimaxmaps.org). Please note that the numbers below do not necessarily represent total WiMAX networks in existence, but rather the total deployments that we currently track. Every month we find more data on new or existing deployments and add them to the database. If you are an operator, please check WiMAX Maps to make sure that your organization's information is accurate. If it is either not there or is inaccurate, please email [deploymentdata@wimaxforum.org](mailto:deploymentdata@wimaxforum.org), and we will update our information immediately.

### **TOTAL DEPLOYMENTS\***

*\*Note: "Deployments" in this case refers to WiMAX networks that are either in service or planned/in deployment (i.e. base stations are being deployed, but there are few/no subscribers yet).*

<b>Total Deployments Tracked</b>	519
<i>Total Deployments Tracked Last Month</i>	518
<b>Total Countries** with WiMAX Deployments</b>	146
<i>Last Month</i>	146

*\*\*Note: "Countries" in this case is representative of distinct telecommunications markets, and therefore this number may equal more than the total number of sovereign nations recognized by the UN. For example, Hong Kong and China have different regulatory structures, and are therefore treated as different markets.*

### **DEPLOYMENTS BY REGION**

<b>Africa</b>	110
<b>CALA</b>	102
<b>Eastern Europe</b>	84

<b>Asia-Pacific</b>	83
<b>Western Europe</b>	69
<b>North America (USA/Canada)</b>	51
<b>Middle East</b>	20

**DEPLOYMENTS BY FREQUENCY**

<b>2.3 GHz Deployments***</b>	29
<b>2.5 GHz Deployments***</b>	68
<b>3.3 GHz Deployments***</b>	9
<b>3.5 GHz Deployments***</b>	245
<b>5+ GHz Deployments***</b>	20

\*\*\*Note: In above table total deployment by Frequency may not add up to total deployments tracked. The missing deployments' statuses are unknown, and will be confirmed and updated.



For more information please visit [www.wimaxmaps.org](http://www.wimaxmaps.org)

**POPs Coverage**

In February, 2009, WiMAX Forum announced that WiMAX service providers cover at least **430 Million** people. Below is a regional breakout of the estimate:

Region	POPs Covered
<b>Africa</b>	52,000,000
<b>Asia-Pacific</b>	205,000,000
<b>CALA</b>	49,500,000
<b>Eastern Europe</b>	45,300,000
<b>Middle East</b>	20,000,000
<b>North America</b>	28,000,000
<b>Western Europe</b>	34,600,000
<b>TOTAL</b>	434,400,000

*\*These numbers represent an estimate conducted by WiMAX Forum via primary and secondary research of operator POPs coverage on an operator-by-operator basis. Where the operator could not or would not respond to direct inquiry, estimates were made based on public operator statements, number of base stations, government-mandated buildout requirements, and other available information. Proprietary networks (pre-WiMAX/non-WiMAX) were **not** included, and geographic overlap of operator coverage areas **was** taken into account.*

Since this research was conducted, many operators have announced changes in POPs coverage. Below are some highlights:

- Green Packet Berhad obtained the rights to Pacnet’s Singapore spectrum license, allowing P1 Networks, a Green Packet subsidiary, to expand its WiMAX network into Singapore.
- BanglaLion launched WiMAX services in Bangladesh, promising nationwide WiMAX coverage within three years.
- Smiles Communications Uganda launched a WiMAX network in the capital city of Kampala, with plans to cover the entire country by the end of 2010.

*\*\*If you are a WiMAX operator and wish to be mentioned here, please contact Jonathan Singer, the WiMAX Forum’s Market Research Manager at [Jonathan.Singer@wimaxforum.org](mailto:Jonathan.Singer@wimaxforum.org).*

## **Monthly Featured Operator Case Study**

### *WiMAX Success Stories: Towerstream*

*Towerstream (NASDAQ: TWER) is a U.S.-based wireless Internet service provider delivering high-speed, wireless Internet access via WiMAX™ to businesses. Founded in 2000 in Rhode Island, Towerstream has established broadband networks in ten markets - New York City, Boston, Philadelphia, Los Angeles, Chicago, the San Francisco Bay Area, Miami, Seattle, Dallas-Fort*

*Worth, and the greater Providence area; and has plans for continued expansion. It operates its WiMAX network in the 3.65 GHz spectrum band, which is subject to light licensing requirements by the U.S. government.*

*[For the full report visit: <http://www.wimaxforum.org/resources/documents/marketing/casestudies>]*

## **WiMAX Forum Certified™ Products**

In November of 2009, WiMAX Forum certified 6 new devices.

<b>Total WiMAX Forum Certified Products</b>	<b>165</b>
<i>Base Stations</i>	<i>54</i>
<i>Subscriber/Mobile Stations</i>	<i>111</i>

## **Recent Certified Devices**

Below is a list of the WiMAX devices certified in November, 2009:

<b>Company</b>	<b>Product Name</b>	<b>Product Type</b>	<b>Frequency</b>
C-motech Co., Ltd	USB Dongle Data Modem Card	Mobile Station	2.5 GHz
C-motech Co., Ltd	Express Card Data Modem Card	Mobile Station	2.5 GHz
Ubee Interactive	Ubee 4G Mobile USB	Mobile Station	2.5 GHz
MediaTek Inc.	MT711x Series	Mobile Station	2.5 GHz
Japan Radio	PCI-Express-MiniCard-2.0	Mobile Station	2.5 GHz
Toshiba	Dynabook SS RX2	Mobile Station	2.5 GHz

## **WiMAX Forum Certified Product Vendors**

<b>WiMAX Vendors with WF Certified Products</b>	<b>Total</b>
Base Station Vendors	<b>25</b>
Subscriber/Mobile Station Vendors	<b>44</b>

- Base Station Vendors

- Airspan Networks, Alcatel-Lucent, Alvarion, Aperto Networks, Axxcelera, Cisco Systems, E.T. Industries, Harris Stratex, Huawei Technologies, Motorola, NEC, Nokia Siemens Networks, Nortel, PointRed Telecom Pvt Ltd, POSDATA, Proxim Wireless Corporation, Redline Communications, Runcom Technologies Ltd., Samsung, Selex Communications, SEQUANS Communications, Soma Networks, SR Telecom, WiNetworks, ZTE Corporation
- Subscriber/Mobile Station Vendors
  - Acer Incorporated, Airspan Networks, Alcatel-Lucent, Alvarion, Aperto Networks, Axxcelera Broadband Wireless, Beceem, Cisco Systems, C-motech Co. Ltd., E.T. Industries, Fujitsu, GCT Semiconductor, Inc., Gigaset Communications, Harris Stratex, Huawei Technologies, Intel Corporation, Interbro, Japan Radio, Kyocera, Lenovo, Micro-Star Int'l co.,LTD, MITSUMI ELECTRIC CO.,LTD., MODACOM Co., Ltd., Motorola, NEC, Oki Electric Industry Co., Ltd., Onkyo, Panasonic, PointRed Telecom, POSDATA, Redline Communications, Runcom Technologies Ltd., Samsung, Selex Communications, SEOWON INTECH Co., Ltd., SEQUANS Communications, Siemens AG, Sony, SR Telecom, Toshiba, Ubee Interactive, Wavesat Inc., ZTE Corporation, ZyXEL Communications Inc.

## **Regulatory Update**

In partnership with WiMAX Forum Regulatory Working Group, AT4 Wireless maintains a detailed [Spectrum & Regulatory database](#). The database provides regular monthly updates detailing global regulatory proceedings. Below is a free, extracted highlight from this month's report:

- **Spain: 1Mbps Connection will be a Legal Right** – In November, 2009 the Spanish government made announced a plan to follow Finland's lead in declaring broadband a legal right of all citizens. This plan, announced by Spanish minister of industry Miguel Sebastian at the FICOD 2009 digital content event in Madrid, promises that Spanish citizens will have the legal right to broadband at 1Mbps in 2011.