



Worldwide cellular connections pass 2.5 billion

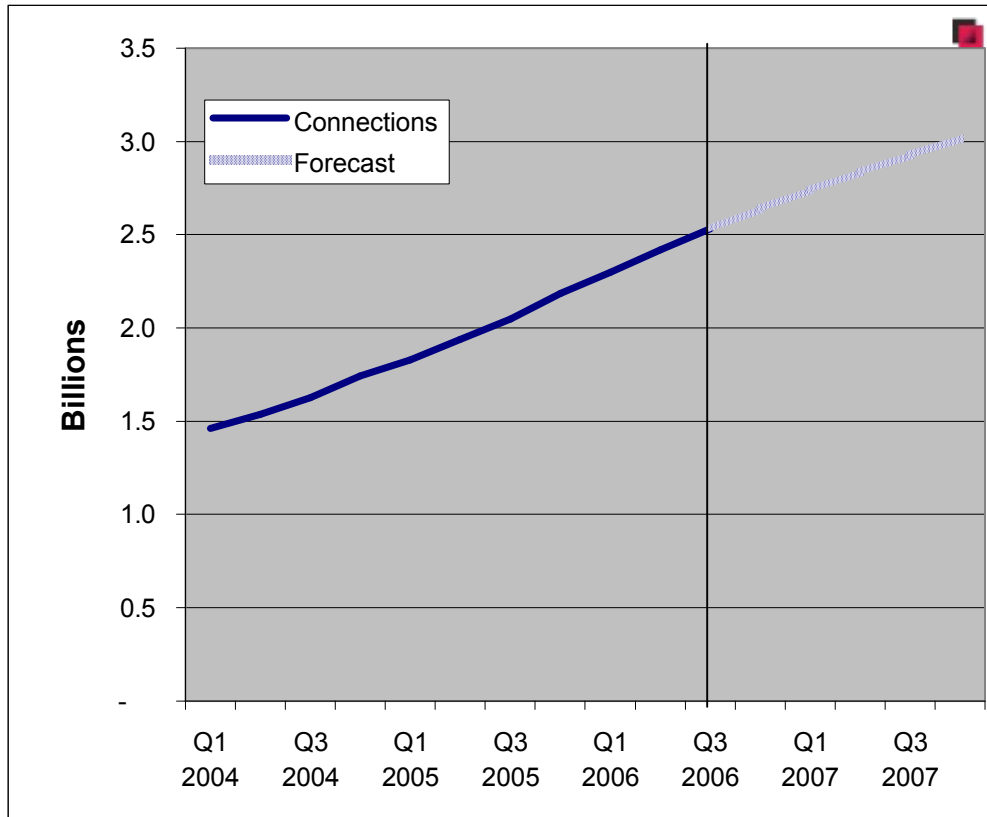
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The cellular world is about to reach the threshold of 2.5 billion connections. The last half billion have arrived in record time and were mainly added in the very high-growth emerging markets of China, India and Russia, although the US has also been growing very strongly as pre-paid rises in popularity. Our forecasts show that the market will now slow down slightly (although the next phase could not be described as 'slow'), with 3 billion connections being reached by the end of 2007.



Figure 1 **World cellular connections**



Source: *Wireless Intelligence, September 2006*

In early September 2006 the total number of cellular connections in the world will reach 2.5 billion, according to our estimates, having passed through the 2 billion mark just 12 months ago.

This represents worldwide growth of over 40 million connections per month – the highest volume of growth the market has ever seen.

The connections figures here overstate the number of active connections. This is because of variable quality of reporting and definitions used by the operators. In particular, the high volume of prepaid and churn in some markets means that there are significant numbers of inactive connections in operator databases.

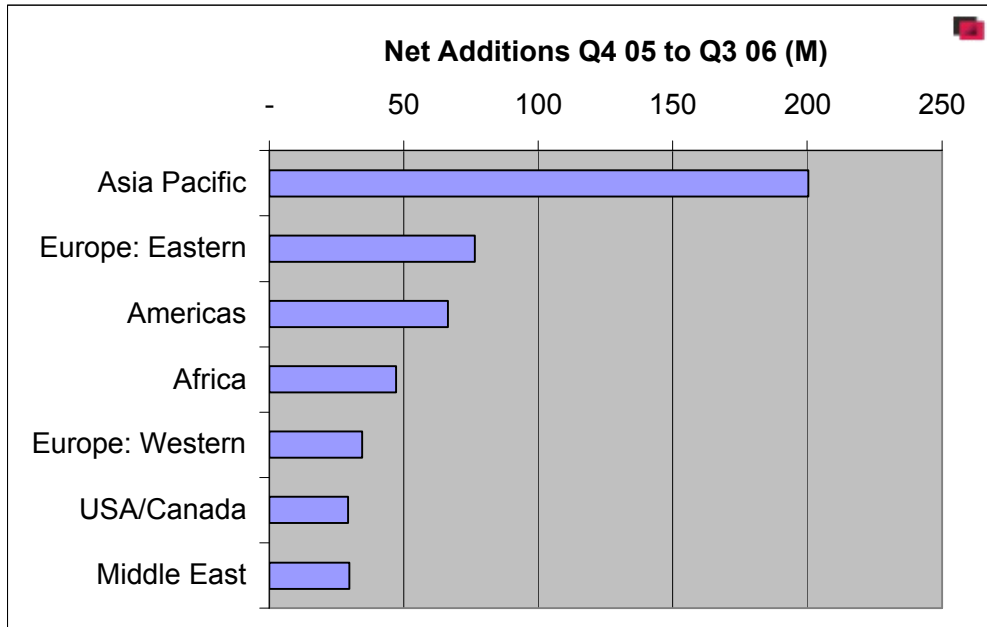
Wireless Intelligence has connections figures for 666 network operators worldwide. Reported numbers account for 77% of the world market and we estimate them where they are not reported.



Analysis

Where did the last half billion come from?

Figure 2 **Regional breakdown of the growth from 2 billion**



Source: *Wireless Intelligence, September 2006*

Over the four quarters to the end of September 2006, world total net additions were 484 million. Of these, 41% were in Asia Pacific. Eastern Europe and the Americas together accounted for 30% of the growth. Africa took 10% of the growth and the relatively mature markets of Western Europe, North America and the Middle East took the remaining 20% in more or less equal measure.

The leading countries for volume of net additions were China, India, Russia and the USA. Concentration is high, with the top ten countries accounting for just over half of the world's cellular market growth.



Figure 3 **Top ten countries by volume of net additions, Q4 2005 to Q3 2006**

	Net Adds (M)
1 China	66
2 India	56
3 Russian Federation	36
4 United States of America	28
5 Pakistan	21
6 Ukraine	16
7 Brazil	15
8 Indonesia	13
9 Nigeria	10
10 Bangladesh	10
Top 10 total	273
Top 10 share	56%
World total	484

Source: *Wireless Intelligence, September 2006*

China leads the field. It has been running at or above 5 million net additions per month since the middle of 2005. That’s roughly equivalent to the whole of Denmark’s population added every month.

The biggest climber is India, which has powered ahead recently, with quarterly net additions having quadrupled from 4.2 million to 16.4 million over the last 18 months.

In the Russian Federation growth has been very high indeed but is now slowing as the market matures, reaching a penetration level close to 100%.

The USA has seen net additions running fairly consistently around 6.5 million per quarter since early 2005.

The remaining six in the top ten are all large countries with less mature cellular markets currently in their high-growth phase.

What technology are the latest half billion using?

Figure 4 shows that GSM took the majority of the latest half billion net additions, and is slowly increasing its share of the world market, which currently stands at 79.4%.

Within the GSM world, W-CDMA took one-tenth of total connections and is currently growing strongly.

Within the CDMA world, the migration to higher speed networks is more rapid. cdmaOne is in decline as people migrate to CDMA 2000 1X and also to CDMA 2000



1xEV-DO. The move to higher data speeds is faster in CDMA with EV-DO taking nearly one-third of total CDMA 2000 net additions during the period, driven by growth in Korea, Japan, China and the USA.

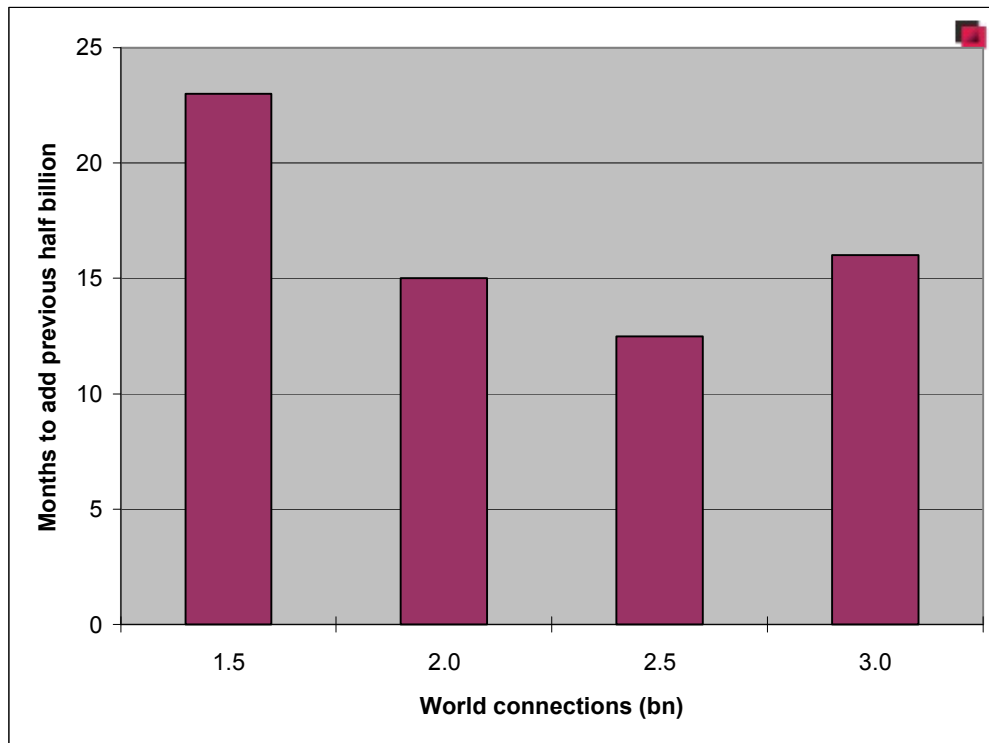
Figure 4 **World net additions by technology, Q4 2005 to Q3 2006**

	Net Adds (M)	Share of growth
cdmaOne	- 21	-4%
CDMA2000 1X	58	12%
CDMA2000 1xEV-DO	22	5%
GSM	422	87%
WCDMA	47	10%
TDMA	- 28	-6%
PDC	- 14	-3%
iDEN	2	0%
Analog	- 3	-1%

Source: Wireless Intelligence, September 2006

How long will it take to add the next half billion?

Figure 5 **Number of months to add previous half billion connections**



Source: Wireless Intelligence, September 2006



According to our current forecasts the next half billion connections will not be added quite as quickly – i.e. world market growth is starting to slow down (although ‘slow’ would not be a good word to describe the growth).

We forecast that it will take 16 months to add the next half billion, meaning that the market will reach 3 billion connections in December 2007.

Where will the next half billion be?

The top ten countries for growth will be the same as during the previous half billion net additions. They will account for 292 million connections – higher than the 273 million they added during the previous half billion growth. The concentration is increasing, with the top ten accounting for 60% of the world’s growth.

However, India will take over the top spot, adding 80 million connections by the end of 2007. China will slip to number 2 but will add more than it did during the previous half billion.

Figure 6 **Top ten countries by volume of net additions, Q4 2006 to Q4 2007**

	Net Adds (M)
1 India	80
2 China	75
3 United States of America	30
4 Russian Federation	21
5 Pakistan	20
6 Indonesia	17
7 Brazil	17
8 Nigeria	11
9 Ukraine	11
10 Bangladesh	10
Top 10 total	292
Top 10 share	60%
World total	486

Source: *Wireless Intelligence, September 2006*

The main other change is that Russia and the Ukraine will slip down the rankings as the markets mature. The Ukraine has currently reached around 80% market penetration, which we forecast to rise to around 110% by the end of 2007.

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