Mobile Broadband

Case Study Series

VimpelCom, Russia

Beeline™
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Key Facts

Russia

Population: 140 million	Internet penetration: 30%
Area: 17 million square kilometres – (largest country in the world)	Broadband penetration: 21% (includes ADSL, fibre, Wi-Fi and 3G)
Population density: 8.23 persons per sq km (least densely-populated country in the world)	2G connections: 190 million
GDP per capita (PPP): US$ 14,800	3G connections (including WCDMA and HSPA): 6.5 million
Mobile penetration: 135%	Sources: CIA, ITU, Internet World Stats, J'son & Partners Consulting

Mobile Broadband Takes Up Residence in Russia

VimpelCom Uses HSPA to Bring Broadband to Russia's Homes and Offices

In Russia, the rollout of HSPA by the country's three largest mobile operators has set the residential broadband market alight. Just nine months after it first switched on its Mobile Broadband (HSPA) network in four Russian cities, VimpelCom, one of the big three, had already signed up 650,000 customers for its USB modems. Known as dongles, these modems connect personal computers to VimpelCom's high-speed mobile network enabling many Russian households and small businesses to get online at broadband speeds for the first time.

As a result, VimpelCom, which is known in Russia by its Beeline brand, has gained a fast-growing new revenue stream. VimpelCom generated 477 million roubles (US$15 million) in revenue from its USB modem connections alone (not including data traffic generated by handsets) in the first quarter of 2009, more than double the 231 million roubles it earned from USB modems in the fourth quarter of 2008.

That revenue growth reflects the pent-up demand for broadband services in Russia. J'son & Partners Consulting estimates ADSL penetration in Russia is just 8% and many people are accustomed to accessing the Internet at speeds of less than 100 kilobits per second.



Since acquiring a license to offer 3G services in the 2100MHz band in 2007, VimpelCom has seen residential broadband as a key target market for its HSPA service and it has been constructing its network to ensure good indoor coverage. "Our 3G product is targeting not so much mobile subscribers as residential Internet users who will be able to access the web via our GSM/HSPA USB modems which work both in 3G and 2G networks," says VimpelCom's Director for residential broadband and fixed-line communication services Diana Samoshkina.

Economies of Scale, Lower Retail Rates

As its Mobile Broadband business gains scale, VimpelCom is using its increasing buying power to bring down the cost of USB modems for its customers. In Russia, mobile operators are not permitted to subsidise the retail price of devices, but VimpelCom has still managed to cut the retail price of a USB modem, equipped with free anti-virus software, to the equivalent of 45 US dollars from around 65 US dollars in June 2009.

VimpelCom has also adapted the software in the USB modems to make it easier and quicker for customers to get online (see separate box), while also developing special tariff plans designed for residential Mobile Broadband. For example, VimpelCom offers unlimited wireless Internet access in the evenings for an average price of 200 roubles a month (about 6.5 US dollars), enabling users to get online when they get home from work. (The actual price varies by region)

Alternatively, customers can choose a 24 hours a day unlimited plan for an average price of 600 roubles or tariff plans with monthly limits ranging from 20 megabytes to 500 megabytes. For these limited plans, the price per megabyte ranges from 1.75 roubles (6 US cents) to 0.85 roubles.

Beeline: A Mobile Communications brand and an Internet Computer brand

The rollout of Mobile Broadband coverage and compatible USB modems is part of VimpelCom's broader strategy to bring high-speed Internet access to

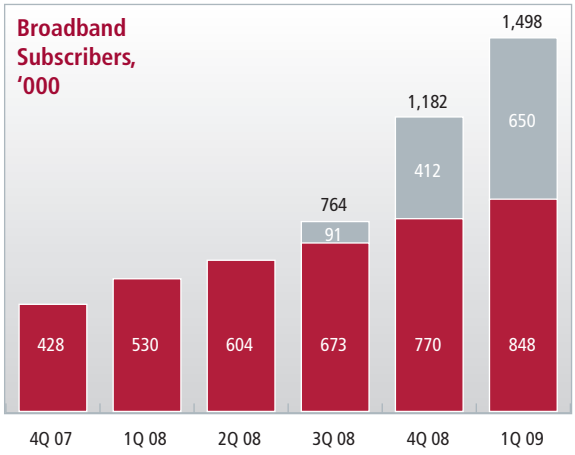


homes and businesses across Russia using a combination of HSPA and fibre-optic connections. "We want people to think of Beeline as an Internet computer brand, as well as a mobile communications brand," says Kent McNeley, VimpelCom's Chief Marketing Officer. "Mobile networks are an efficient way to get broadband to many areas quickly."

To boost its broadband infrastructure VimpelCom acquired fixed-line operator Golden Telecom in early 2008. Where VimpelCom already has a fibre network ringing a city and a link to its backbone network, the Moscow-based operator looks to offer fibre-to-the-building (FTTB) connections in that metropolitan area. Elsewhere, if it has access to the necessary spectrum, VimpelCom uses HSPA to offer broadband services to homes and small businesses.

In some cities, VimpelCom offers both FTTB and HSPA connections, using its fibre network to provide very fast backhaul links to its base stations. VimpelCom now provides Mobile Broadband services in 52 Russian cities, covering between 15% and 20% of the total population. The network runs at a peak speed of 7.2 megabits per second in the downlink, but the actual throughput experienced by users is lower than that, varying according to how many people are connected in the cell at the time.

VimpelCom's Mobile Broadband customer base is fast catching up with its fixed-line broadband customer base following the launch of the HSPA network. VimpelCom's USB Mobile Broadband connections grew 58% to 650,000 between the end of 2008 and March 31st, 2009, while fixed-line broadband connections rose 10% to 848,000. In the nine months it has taken VimpelCom to go from zero to 650,000 Mobile Broadband connections, its fixed-line broadband connections have increased by 175,000.



HSPA Handsets Coming Online

At a time when the Russian economy is being buffeted by the global crisis, Mobile Broadband is also helping to bolster the revenues VimpelCom earns from handset users. The rollout of HSPA has prompted major growth in mobile Internet usage by VimpelCom customers on their handsets. Mobile Internet traffic has more than doubled, for example, in the cities that now have HSPA coverage. Kent McNeley says the HSPA network provides a much better mobile Internet experience than the 2G network, which even enhanced with EDGE technology, could get very slow at peak times.

In Russia, 95% of mobile users are prepaid subscribers, so the vast majority of mobile Internet traffic is sold by the megabyte and VimpelCom experiences a significant uplift in data ARPU when a customer switches from a 2G handset to a 3G handset. Paying according to usage means lower-income users don't need to commit to an expensive data plan, using the service at a level that fits their budget. The most popular services among Russian consumers include Web browsing, instant messaging, Wap browsing and file sharing, while business users' top three are Web browsing, email and downloads.

Russian Mobile Internet Market Takes Off

- In 2008, Russian mobile operators' collective revenue from mobile Internet revenues increased by 65% to US$ 657 million, according to research by J'son & Partners Consulting. The firm estimated that by the end of 2008, there were 32.5 million mobile internet users in Russia.
- By the end of March 2009, there were approximately 6.5 million 3G terminals in use in Russia, according to J'son and Partners Research.
- In the first quarter of 2009, Russian mobile operators collectively earned 15.18 billion roubles (US$ 484 million) from mobile content and data services (excluding messaging), up from 13.59 billion in the fourth quarter of 2008, according to AC&M Consulting.
- Despite the economic slump, ComNews Research forecasts that by the end of 2009 the mobile Internet revenue of Russian operators will increase by 67% to exceed 42 billion roubles (US$ 1.34 billion).

The rollout of HSPA also creates more network space for multimedia communication services, such as MMS and the "Chat" service just launched by VimpelCom and the other two major Russian mobile operators, which enables their customers to exchange instant messages and emoticons, while controlling their presence status across networks.

Covering the World's Largest Country

After a frenetic HSPA network build-out in 2008, the economic crisis prompted VimpelCom to slow its expansion plans somewhat in the first quarter of 2009. Even so, the operator launched Mobile Broadband services in four cities in Siberia, including Novosibirsk, the third-largest city in Russia after Moscow and Saint Petersburg. "Getting HSPA to all the large cities in Russia will take time," says Kent McNeley. "If you have to run trunk lines half way across Russia, that is thousands of kilometres you have to cover. " By the end of 2009, VimpelCom plans to have 25% population coverage.

At the same time, VimpelCom engineers are continuing to work on enhancing the performance of the network both at the radio access level and by improving the backhaul links to the base stations. VimpelCom plans to upgrade the network to HSPA+, which will significantly boost throughput-speeds, capacity and responsiveness, in 2010 and 2011. In the longer-term, VimpelCom expects to also deploy a Long-Term Evolution (LTE) network to meet demand for very fast mobile connectivity.

As Mobile Broadband coverage spreads across Russia, Kent McNeley sees rising demand for laptop computers with emdedded HSPA modems enabling the user to get online quickly and easily without a USB dongle. "That is on the brink of becoming a bigger and bigger opportunity. It is not very big today in Russia, but getting very close for netbooks, laptops and tablet computers," he says.



Alexander Pavlovich, Head of Usability Service opens the Mobio Lab

Making Dongles Easier to Use

In the usability lab in its headquarters building in Moscow, VimpelCom worked with its dongle suppliers to make the built-in USB software both easier to use and customised to provide quick access to Beeline services and products.

"We go through three or four feedback loops with trial users on a given product and service, asking: What is the most effective way to do that? What is the easiest way to do that?" says Kent McNealey. "If we make it easier to load and easier to navigate then we are driving up the percentage of people that can complete a given task."

As a result, Beeline's USB-modems can be installed automatically and customers gain immediate access to an interactive personalised home page, which they can use to manage their settings and accounts. The dongle also contains free anti-virus software so that users can start surfing immediately without fear of infecting their computer.