

Broadband & Satellite Russia Newsletter

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Dmitry Bagdasaryan, Head of Fixed Business and TV. MTS







Maria Kamenskava, Head of Thematic Research Section. Television **Research Department TNS Russia**



President. AKADO



Oleg Kolesnikov, CTO, NTV-Plus



Maria Levochkina, Head of TV Content Management Department, VimpelCom



Vladimir Livshits. Head of Information and analytical Center. Advisor to the President of NAT



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TTK Goes Underground

Russian telecom company TTK (TransTeleCom, a subsidiary of Russian Railways) completed a pilot project of CCTV roll-out in the metro system of Russia's largest city located on the Volga river – Nizhni Novgorod, and is currently engaged in negotiations with other major cities of the country.

TTK is negotiating a contract with the Moscow Metro for implementation of CCTV system in the cars. The singularity of this service is that video data captured by cameras in the moving train is transmitted to the control unit in real-time mode. TTK has already implemented a pilot CCTV project in the Nizhni Novgorod Metro. Wi-Fi was used in the section across the Oka River. The network made it possible to transmit video streams from cameras mounted in cars to the Metro's operations control centre in real-time mode. Now TTK is discussing commercial implementation of similar projects in other cities, namely, the company has confirmed they are currently negotiating with the Moscow Metro. TTK even intends to join the International Metro Association, which unites underground railway systems of Russia and the CIS, along with manufacturers – suppliers of equipment and technical facilities for the metro.

What makes TTK's solution for the metro unique is a dedicated broadband wireless network which links base stations in tunnels and operations control centre with cameras and transmitters mounted in cars. Average data transfer rate in moving trains is 100 Mbps, communicated TTK Vice-President for Corporate communications Tatiana Semenova. The network doesn't imply Internet access for commuters.

ITE Smartphones Sales Numbers Up

In 2013, Russian retailers supplied 2.5 million LTE smartphones, or 13% of total market of mobile devices in Russia. Mobile operators started marketing branded low-end LTE smartphones, thus hoping to ramp up data consumption among their subscribers. In mid-February, one of Russia's largest mobile retailers – Svyaznoy company – released the sales numbers for LTE

ITE Marching In The Capital

MegaFon, Russia's second mobile operator in subscriber base, launched into commercial operation an LTE Advanced (LTE-A) network within the boundaries of Moscow Garden Ring. Until the year-end, the operator plans to extend its LTE-A coverage to the Moscow Ring Road (MKAD). Previously, MegaFon tested its LTE-A networks at the sites of the Winter Olympic Games 2014 in Sochi. According to the company, LTE-A can achieve 300 Mbps data rate.

"To build the new standard network, MegaFon is using a unique combination covering a spread of 2,600 Mhz of its own band spectrum

and the frequency resource of Scartel as a mobile virtual network operator (MVNO). Data costs on the new network will be the same as for 3G and 4G", says MegaFon's press release.

According to Scartel's management (MegaFon has acquired Yota's LTE network), they could also offer network capacity to other operators willing to work under MVNO scheme, but this would affect the quality of MegaFon's 4G services. In 2012, Scartel was the first in Russia to launch LTE-A subnetwork in Moscow, and back then the company planned to switch its entire network to LTE-A before the end of 2013.

MTS To Complete LTE Construction In Two Years

Russia's largest mobile service provider Mobile TeleSystems (MTS) will raise the number of regions covered by LTE mobile broadband technology to 74 in 2013, and next year the company will complete the construction of its fourth generation (4G) network all around the country. The number of 4G base stations will increase from 5,000 to several dozens of thousands, communicated MTS' Vice President for Marketing Vasil Latsanych. As of February, MTS had operating 4G networks in 14 regions of Russia. Also, the company has no plans for large-scale 3G construction, all they intend to do is "tune" the existing network up.

According to MTS' report for Q3 2013, total number of 3G and 4G base stations exceeded 36,600, and more than 5,000 were LTE units.

Hectic construction of data networks is stipulated by MTS's new 3D strategy (Data + Differentiation + Dividends) for 2014-2016. The company believes that LTE will help them to improve service for "heavy" users and decrease the load on 3G networks. LTE isn't expected to become substantially accretive to operator's earnings until five years from now.

TTK – Leader In Broadband Growth

Railways communications operator TransTeleCom Company (TTK) hit its target for mass market subscriber connections for 2013 and exceeded 1.5 million subscribers. In 2013, TTK's broadband Internet subscriber base was up by more than 50%, significantly outgrowing the overall market.

By the beginning of 2014, TTK's broadband and cable TV subscribers reached 1.5 million, communicated a spokesperson for the company Tatiana Semenova. Therefore, the operator was able to fulfill the 2013 plan for connections.

TTK launched pro-active engagement of broadband users in the B2C market early 2011. Since then, the company's subscriber base

was up by almost 10 times, and in 2014 TTK intends to beat the 2 million milestone, Semenova says. TTK's strategy stipulates that by the end of 2015 the company will cater to 2.3 million broadband subscribers. Its primary target market is towns with population under 100,000 people, which account for almost 40% of all new connections, she added.

At this point, TTK holds the last place among the top 5 largest Russian broadband providers in subscribers. It is reported that in 2014 Rostelecom tops the list with 9.15 million subscribers, with ER-Telecom and MTS coming second and third with 2.7 and 2.35 million subscribers, respectively.

1,300 Localities In Russia Are Disconnected

1,343 Russian localities with population from 500 to 10,000 people have no access to the Internet and mobile services, concluded last year's study commissioned by the Ministry of Communications and Mass Media, which scanned availability of telecommunication services in small towns of Russia. Most of the localities in question represent Stavropol territory, the Republic of Bashkortostan, Novosibirsk region, the Republic of Dagestan and Karachay– Cherkess Republic, the Ministry amplified.

Given that as of the end of 2013, there were more than 17,500 localities with population between 500 and 10,000 people, it means that 7.6% of them were deprived of state-of-the-art communication technologies.

Another 38%, or 6,725 localities, are towns and big villages which have voice mobile services, but not the Internet, wired or wireless. Such communities are mainly located in Dagestan, Magadan region, Kalmykia, Stavropol territory and the Nenets autonomous district. Inavailability of Internet there is determined by the lack of fiber

optic lines. The Ministry emphasized that "the local authorities in 55% of small towns and big villages are committed to provide communication services to the population and are ready to furnish the required infrastructure, and 62% of the communities in question already meet the power capacity requirements."

COMNEWS

Osnova Telecom's 4G Deemed Illegal

The number of households which subscribed to satellite broadband services in 2013 was up by 186.35% compared with the previous year. Total subscribers reached 8,322. Meanwhile, in the corporate segment, satellite broadband subscribers were up by 21.8%, found a study by ComNews Research, published in February. Subscriber base in two-way satellite broadband services for households was up by 5,415 users, or 186%. The key four players ramping up the market were RuSat (2,532 new subscribers), AltegroSky (1,632), Raduga-Internet (786) and StarBlazer (437). Growth was driven by the reduction in price for subscriber equipment and traffic, another important factor

was the launch of new space crafts Yamal-300K and Yamal-402 by Gazprom Space Systems, which eliminated the shortage of satellite capacity.

According to ComNews Research, 2013 also saw an increase in average satellite broadband access speed, traffic consumed and monthly ARPU both in the household and corporate sectors. Experts of ComNews Research anticipate the highest demand for satellite broadband services in Moscow, Leningrad and Rostov regions, and also in the Perm Territory, as all these areas have numerous cottage communities within 100km from a city with a million-plus population.

110 Gbps For The Olympics

National telecommunications enterprise Rostelecom, a Partner of the Winter Olympic Games in Sochi, provided data channels to all authorized Olympic TV broadcasters. "To ensure the best TV picture quality, the largest TV broadcasters – America's NBC, Canada's CBC, Germany's ARD-ZDF and the UK's BBC contracted international data broadcasting at a speed of up to 10 Gbps. Overall, Rostelecom provided 110 Gbps of bandwidth to TV broadcasting companies. International broadcasters were granted the use of 1,112 optic fibers", communicated the company's press service.

According to Rostelecom, for the first time in history the Winter Olympics were broadcasted in Super Hi-Vision (8K) digital format, which is 16 times better in definition than HDTV. Broadcasting rights for the Winter Olympics were purchased by 90 TV companies, including sublicensees and broadcasting unions, from 123 countries. Television audience of the Sochi games was at least 3 billion people.

Overall, Rostelecom's Sochi 2014 project comprised provision of ICT services on 35 Olympic venues. In order to deliver required services and broadcasting capacities, Rostelecom increased its backbone network throughput to 140 Gbps, and multiservice network throughput – to 40 Gbps.

Ministry of Communications Disapproves Bans

Head of Russian Ministry of Communications and Mass Media Nikolay Nikiforov doesn't approve direct prohibition of foreign-made telecommunications equipment proposed by several members of the Russian parliament, as, according to the Minister, it could undermine the efficiency of telecommunications providers and the industry in general.

In February, deputies of the State Duma submitted a draft law which obliges operators to choose domestic manufacturers of equipment over foreign makers. As follows from the document, foreign-made equipment may only be used in the territory of Russia in case there is no Russianmade substitute. According to the Minister, the authority essentially agrees that domestic manufacturing needs support on the high level. "It's a question of both developing our high-tech industries, and the country's IT security. But this can't be done through force and to the detriment of Russian service providers, which even have public corporations among them", Minister Nikiforov said at a briefing in the Government.

Russian 4G Across The Atlantics

Russian mobile operator MegaFon launched 4G roaming services in the US and Canada. MegaFon partnered with American AT&T Mobility and Canadian Rogers Communications, says the provider's release. Previously, the service was available to the operator's subscribers in South Korea, Switzerland and France. Clients of MegaFon's five partners can use 4G roaming services at the Olympic venues in Sochi.

In the end of January, Russia's largest mobile operator Mobile TeleSystems (MTS) launched LTE roaming in the United Kingdom. The UK was the third country following South Korea and the Saudi Arabia where MTS offers 4G roaming services to its Russian subscribers. Meanwhile the third member of the Big 3 operators – VimpelCom is preparing for technological launch of LTE roaming. Experts of J'son & Partners Consulting agency earlier forecasted that the first multilateral roaming agreements between Russian mobile service providers and international LTE operators wouldn't be signed until the second half of 2014. J&P expects a significant increase in the number of roaming agreements in LTE networks, as operators are striving to ramp up roaming traffic consumption. "Operators are still trying out different pricing models for LTE roaming, because pricing will also affect traffic consumption", analysts say.

Broadband Russia

Money For LTE Conversion Found	
Russian Ministry of Communications and Mass Media and several other authorities and operators figured out that the best way to finance conversion of spectrum for fourth generation services (4G LTE) is from the fees for radio frequency paid by operators to the federal budget. Latest wording of the federal law "On Communications" doesn't prescribe which share of these means should be spent on conversion, nor does it specify a mechanism for money transfer. All these details are developed in the list of	instructions the Ministry has drafted for other authorities involved. The document has been approved by the Government and is now being reviewed by the Presidential Administration. Currently 60% of operators' payments are used to finance the activities of the State Radio Frequency authority, and the remaining 40% goes to the federal budget. Ministry of Communications suggested that this 40% should be spent on spectrum conversion.
Domodedovo Has Gone Wi-Fi	
Moscow International Airport Domodedovo launched free Wi-Fi services. The airport's Wi-Fi network employs 360 access points. In the future, the facility intends to expand its network to 2,000 access points. Domodedovo press service reported that the Wi-Fi launch is a joint project of the airport and Infosystems Jet integrator.	"W-Fi access enabled in the passenger terminal of Domodedovo airpor can be used during an unlimited period of time. Network equipment has al certificates required in the Russian Federation, complies with a 802.11 a/b/g/n standard, supports MIMO (Multiple Input Multiple Output) technology, and operates in the 2.4 GHz and 5 GHz ranges", said a source in Domodedovo.
LTE For Corporate Telephony	
Mobile 4G networks help to counter the monopolism of line telephony service providers in Russian business centers. Mobile operator MegaFon has developed a solution which connects office PBX (Private Business eXchange) to the telephone network over LTE. The system can also provide Internet access, said a source in the company. Besides, according to the Ru domain name registry, in the end of January MegaFon registered	megapbx.ru domain name. Among the Big Three Russian mobile providers, MegaFon is the one dropping behind in the corporate segment. Promotion will be the keystone of the new service's success. If MegaFon able to deliver a convenient packaged solution, they will be able to draw over part of other operators' clients, commented market experts who ComNews reached out to.

International Conference

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The Key Topics:

- · Russian market of satellite communications: competition of satellite constellations.
- Prospects for joint production of space systems in the territory of Russia and the CIS.
- Features of the technology transfer to the Russian partners.
- Overview of the global launch services market, the growth in demand for medium and heavy satellites' launches.
- Competition strategies of the Russian launch services providers regarding the market entry of new players and new launch vehicles.
- Regulation of the national markets of satellite communications and broadcasting, the coexistence of national and foreign players.
- Examples and specificity of the national space programs in the CIS countries.
- Regulatory aspects of mobile satellite communication networks operation in Russia and CIS.
- Gateway construction a business need or a political necessity?
- System for Operative Investigative Activities in mobile satellite communication networks.
- Interaction issues of mobile satellite and terrestrial cellular networks.
- Data transfer and broadband in mobile satellite communications
- B2B and B2C VSAT markets in Russia: challenges and prospects for the industry

April 16, 2014

Renaissance Moscow Monarch Centre Hotel 31A bld.1_Leningradsky prospect, Moscow, Russia

April 17, 2014 Telecommunication Center Schelkovo 77B bld. Moscow street, Schelkovo, Moscow region, Russia

Analytical Partner:



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