



# **Broadband & Satellite Russia Newsletter**

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**COMNEWS** 

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### The 6th International Business Forum

# «LTE Russia & CIS 2014 – Evolution of Mobile Networks»

#### May 20-21, 2014

Renaissance Moscow Monarch Centre Hotel 31A Bldg.1 Leningradsky prospect, Moscow, Russia



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### Key Topics:

- The ecosystem of LTE in Russia and CIS. Market trends and prospects
- Conversion of radio spectrum for LTE networks
- Common use of radio–frequency spectrum in Russia and CIS
- The principle of technological neutrality in practice: challenges and drivers
- Opportunities and existing mechanisms of frequencies' exchange between operators
- International and national roaming in LTE networks
- Prospects for LTE equipment production in Russia
- Prospects and opportunities for LTE networks deployment in 1800 MHz band
- LTE-Advanced networks. Trends and prospects
- MVNO model over LTE networks
- LTE networks' infrastructure joint construction and use
- Chips for LTE Terminals, 2G/3G networks support. Multi–standard terminals
- The market of end user equipment for LTE networks
- VoLTE and other voice solutions for LTE networks

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### **TTK** World at a different angle

#### TTK Moving East

Following the expansion of high speed Internet into Russia's province and small towns, TransTeleCom Company (TTK) has concluded the first phase of broadband network construction in Svobodny, a town in Amur region with 60,000 residents. Home Internet from regional subsidiary of the operator – TTK-Chita was made available to 1.500 households in 22 apartment blocks.

"Until the end of summer, TTK-Chita's fiber optic network will have covered 80% of town apartment housing, or 7,500 households in more than 100 local apartment blocks", said acting CEO of TTK-Chita Dmitry Soloviev. TTK is one of the top 5 telecom carriers in Russia. TransTeleCom Company (TTK brand) was established in 1997. Its majority shareholder is Russian Railways OJSC. TTK operates the highest-capacity fiber optic network in Russia – more than 76,000 km long, 1.6 Tbps bandwidth. The network is laid along the national railroad system, it counts with more than 1,000 access nodes in all federal districts of Russia and links Western Europe with Asia Pacific. The company uses FTTB (Fiber To The Building)technology for its networks in the urban area.

#### ITE Miracle In Russia

At the beginning of Q2, 2014 Russia had about 2 million 4G (LTE) subscribers, says a study released by J'son & Partners Consulting. LTE networks in Russia have been evolving in accordance with an optimistic forecast from two years ago, explains head of Wireless department of J'son & Partners Consulting Vitaly Solonin. He expects that LTE subscriber base will hit 3 million this year, and by 2018 it will reach 20 million. In regions, where LTE networks have been deployed more than a year ago, annual traffic and operators' earnings from data services are nearly half as much compared to other regions. Over a year, traffic increased 61% and operators' earnings' were up by 31% on average in regions with active LTE networks, compared with 47% and 20% in regions which don't have LTE yet. J'son &

Partners also quoted MegaFon's report stating that over the year from April 1, 2013 till March 31, 2014 LTE traffic in the operator's network was up 4.5 times, and its share in total traffic has reached 39%.

However, it's early to say that LTE has changed operators' profit pattern, keeping in mind the amount of investment which has already been poured into network roll-outs and which remains to be spent. Russia's largest mobile service provider MTS doesn't expect LTE to make a notable contribution into their earnings until 5 years from now, when penetration of LTE devices among users of mobile Internet is projected to reach 48%.

Nevertheless, operators invest more and more into LTE.

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4G Smartphones Topping Record Levels In Moscow		
In the first quarter 2014, sales of LTE smartphones in Moscow were up 124% in physical terms and 89% in money terms against the same period in 2013, stated a study by Svyaznoy. Over the quarter, 141,000 LTE smartphones worth about \$99 million were sold in the Russian capital. Share of LTE devices among total smartphone sold in Moscow was 23% in units and 50% in money terms, against 13% and 30%, respec-	tively, a year earlier. Average price for an LTE smartphone is about \$700 in Moscow, \$100 higher than in the rest of Russia. Moscow accounts for 19% of all LTE smartphones sold in Russia, says the release by Svyaznoy. Overall, in the first three months of 2014, con- sumers in Russia bought 750,000 LTE smartphones worth about \$444 million.	∞

#### In the strong of the strong

Proton-M launch vehicle failed to place the Express-AM4R communications satellite into orbit. The accident happened in the early hours of May 16, in the 545th second after liftoff as a result of the third-stage engine glitch. A similar satellite – Express-AM4 was lost in summer 2011 following its launch.

The malfunction occurred during the launch of Proton-M carrier rocket propelling Russia's highest capacity telecom satellite Express-AM4R. A source in the rocket and space industry unveiled that the third stage of Proton-M failed 40 seconds before the scheduled separation of Briz-M upper stage and the satellite. Official preliminary version of the accident cause, according to chief of Roscosmos Oleg Ostapenko, is pressure leak in one of the control engines of the thirdstage of the launcher. That was the tenth space launch conducted by Russia in 2014. All the previous missions of the year were successful. A special commission in Roscosmos will study the causes of the emergency, meanwhile, Proton launches will be suspended. Debris of Proton-M could fall in the Republic of Altai or the Pacific Ocean. According to the head of Roscosmos, the rocket has burnt up in the dense layers of the atmosphere before separation of its upper stage Briz-M and the satellite, which therefore was failed to be placed into orbit. The lost telecom satellite Express-Am4R cost about 21 million Euro. It was built by European company EADS Astrium for state-owned Russian Satellite Communication Company and was insured. The commsat was equipped with 63 C-, Ku-, Ka- and L-band transponders and 10 antennas which were meant to ensure stable coverage over the entire territory of Russia and CIS. Once positioned on the geostationary orbit, it was supposed to provide Internet access in remote regions of Russia at affordable prices. Express-AM4R is a copy of Express-AM4 vehicle, which was lost following a launch failure in August 2011.

#### ③ Crimea Connecting To Russia

Crimea and the city of Sevastopol have started connecting local executive authorities to the communication channel fully based on Russian traffic routes, reported Russian Ministry of Communications and Mass Media. In the end of April, Rostelecom brought into operation a 46km fiber optic channel under the Strait of Kerch.

In the middle of May, Rostelecom announced that they will provide services in Crimea (fixed-line communications, Internet access, pay TV) using the brand Miranda-Media (100% subsidiary of Rostelecom) instead of their own.

#### Orimea Waiting For LTE Operator

Television, radio and telecommunications in Crimea may be placed into new designated government enterprises Krymsvyaz and Krymtelecom, and the local authorities are already talking over the possibility of setting up an LTE operator. However, the federal government hasn't yet decided on how to develop telecommunications in the peninsula, and how holders of federal licenses for 4G will be able to come into Crimea. The next meeting of the Crimean cabinet will discuss establishment of state autonomous institution Krym TV and Radio Company and state unitary enterprises Krymsvyaz, Krymtelecom and Crimean State Frequency Centre. Krymsvyaz will be in charge of television and radio, and Krymtelecom will take over telephone services, more specifically – wired telephony, at least for now, specified the Crimean Ministry of Information. At the same time, Minister for Crimean Affairs Oleg Saveliev recently announced that Crimea may soon get an operator for mobile communications. According to him, "one of the options is to set up an operator, some 'Krymtelecom', which will develop LTE network and implement state-of-the-art communications in the Southern coast of Crimea. A meeting to discuss this issue will be held in Crimea with participation of Russian Ministry of Communications and Mass Media, major telecom carriers and local authorities.

In the beginning of the year, Crimea and the city of Sevastopol had 2.97 million mobile users. Market leader was the Ukrainian subsidiary of MTS (57%), which was followed by Kievstar (a subsidiary of Vimpelcom Ltd, 21%), and Astelit (Life brand, which belongs to Turkey's Turkcell and Ukrainian tycoon Rinat Akhmetov; 16%).

#### Wide 'Satellite Communications'

In the end of 2014, Russian Satellite Communications Company (RSCC) will put into commercial operation a broadband network in the Ka-band through Express-AM5 satellite, said RSCC's Deputy CEO for Innovations Evgeny Buydinov at the seminar "RSCC's VSAT-based services in the Ku- and Ka-bands" at the 26th International Exhibition Sviaz-Expocomm 2014. According to him, RSCC will be testing the service over the summer in collaboration with Russian VSAT vendor

### EASTAR in order to put it into trial operation in September. Besides, U.S. Hughes will supply a Jupiter hub to be placed in Khabarovsk.

RSCC will devise a tariff policy closer to the trial launch of the satellite broadband network, but rates for lessees of satellite resource, according to Evgeny Buydinov, won't be very different from current offer on Eutelsat Ka-Sat satellite, i.e. about \$1000 per 1 Mbps.

#### Whose GPS Is Wider?

From June 1 Russia will suspend he operation of all American GPS sites on its territory, said Russia's deputy PM, Dmitry Rogozin. He stressed that Moscow and Washington have until May 31 to agree on the issue of setting Russian GLONASS stations on the U.S. territory, which was put on hold by Washington, while GPS stations are operating in 10 constituent entities of Russia.

"Since we haven't seen any advancement on the issue of setting GLONASS in the American territory, we give it until May 31. If not, beginning June 1, Russia will suspend the operation of these stations in the Russian territory", Rogozin said. Deputy PM communicated that a working group comprising representatives from Roscosmos, Russian Academy of Sciences and Ministry of Foreign Affairs has already been formed. "I hope that these negotiations will find a way to restore proportional cooperation. If not, from Sept. 1, the operation of these stations will be stopped completely", he said. Overall, 11 GPS stations are places across Russia in Kaluga and Sverdlovsk regions, Krasnoyarsk territory, Sazha-Yakutia Republic, Irkutsk, Magadan, Southern Sakhalin, and Petropavlovsk-Kamchatsky. Rogozin also said that Russia may halt supplies of NK-33 and RD-180 rocket engines to the U.S.

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#### Optic Moscow

In the first quarter 2014, Moscow City Telephone Network (MGTS) has stepped up the length of its optic lines in Moscow to 26,000 km, which is half as much compared with last year. As of April 1, 2.3 million users – more than half of the company's subscriber base, had technical capability to connect to GPON optical network, reported MGTS' press service.

Over the year, the number of GPON users was up by more than 2.2 times to 730,000 subscribers. Double and triple play users more than tripled to reach 330,000 clients, and penetration of additional services

 broadband Internet access and television among GPON subscribers was up from 32% to 45%.

"We are creating a digital platform of the city, which will empower us not only to provide cutting edge services to the Muscovites, but also implement the most complex projects for the city and the business", said MGTS CEO Andrey Ershov. "Cutting edge services we are currently introducing, such as complex video analysis, intruder and fire alarm and some others, improve the Muscovites' quality of living. Our innovative technologies are the future of the city and its residents."

#### Innish-Russian Phrasebook

Russia's largest mobile service provider Mobile TeleSystems (MTS) has completed the first Voice over LTE (VoLTE) call on a telco cloud infrastructure using Nokia's technology. The virtualization of service and control functions in the core network is an important step in using cloud technology in the telco domain. "Together with MTS we have proved that the clouds are ready for VoLTE", says an official statement by Nokia.

VoLTE and telco cloud are principal technologies that will help us address new business opportunities and deliver a superior voice experience to our customers," said Andrey Ushatskiy, chief technical and IT officer at MTS Group. "This live implementation of virtualized VoLTE with our long-standing partner, Nokia, is an important proof-of-concept and shows our commitment to offering our customers the most advanced voice services possible". He added that MTS expects the compound annual growth of mobile data traffic to reach 79% by 2020. "We have to prepare our networks to deliver a quality mobile broadband experience to our customers", stressed Ushatskiy.

ComNews earlier communicated that MTS was testing this technology and was going to bring it into commercial operation anytime soon. VoLTE enables voice, video and text communications in 4G networks without reverting to 2G / 3G. One of the advantages of the new technology is fast call setup time (less than a second) and high quality of sound.

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Reportedly, Rostelecom is negotiating acquisition of Wimax operator Freshtel, which is attributed to the organizations controlled by Russian tycoon Suleyman Kerimov and Ukrainian billionaire Viktor Pinchuk. Earlier, Freshtel was targeted by a telecom subsidiary of Russian Railways – TransTeleCom (TTK), but the operator wasn't satisfied with the price set for the company – about \$200m. Rostelecom could use Freshtel for its project aimed to provide wired Internet in small localities around Russia, which the government will allocate about \$4.2bn to.

Rostelecom's plans for Freshtel were unveiled by a source in the telecom market and confirmed by managers, close to the negotiating

parties. "The negotiations have carried on for more than a month already, but the decision to acquire Freshtel hasn't been made yet. Rostelecom is currently conducting due diligence of the company", claims an unnamed source. They wouldn't disclose the transaction amount, but emphasized that Rostelecom intends to settle M&A transactions with their own shares, rather than money (namely, a subsidiary of Rostelecom – Mobitel – holds 9.38% of operator's stock). Spokespersons for Rostelecom and Freshtel weren't available for comment.

#### **IP Telephony Will Be Legalized**

Ministry of Communications and Mass Media may not only legalize the IP telephony market in Russia, which in 2013 notched more than \$200m, but allow IP operators to use regional codes, as is the case with fixed-line telephony. International services, such as Skype, will hardly be interested, because in order to be awarded numbering capacity, they would need to register in Russia and obtain a license for telecommunications operations.

Ministry of Communications has tabled for public discussion a draft resolution which amends the rules for connection in voice and data networks. One of the provisions of the document legalizes IP telephony in Russia. While regulations in force don't provide for carrying voice traffic from the Internet to landline telephone networks, the draft resolution says that interconnection between data and telephone networks will be allowed, provided that operators use the number pool resource of the national telecommunications network. The Ministry believes that "such measures will propel competition in the market and, consequently, improve the quality of services".

Experts estimate the Russian IP telephony market in 2013 at about \$206m. ER-Telecom is the largest player holding about 25% of the market. Other market leaders, as per industry analysts, include Mango-Telecom, MTT, Enforta, and Rostelecom, but their shares are yet to be specified. Skype, one of the largest IP telephony services in the world, accounted for 5% of the Russian market.

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Rostelecom spent \$30m on telco infrastructure in Crimea. Assets acquired by a subsidiary of the operator – Miranda-Media Ltd. – include telecommunications equipment and fiber optic channels more than 2,000km in length. The infrastructure used to belong to three Ukrainian enterprises, but only two of them have been disclosed so far – Datagroup and Atracom. Rostelecom also negotiated acquisition of the assets in Crimea with former state monopoly Ukrtelecom, currently controlled by Ukrainian tycoon Rinat Akhmetov, but the parties failed to settle on a price.

In terms of taxation, the best way to effect such transactions is through a foreign-jurisdiction company, confided senior partner at Pepelyaev Group Vladimir Sokov. But no matter the jurisdiction used to close the transaction, it is very unlikely that Rostelecom would lose this asset in the future. According to the expert, even though the accession of Crimea isn't recognized by many countries of the world, this fact would hardly matter in court.

In the end of March, Russia's Prime Minister Dmitry Medvedev urged to make sure Rostelecom and its subsidiaries are present in Crimea asap. Back then, the PM said that using the capacities of foreign telecommunication companies to transmit documents related to public administration, including classified information, was unacceptable. He also instructed Ministry of Communications and Mass Media to produce a road map of actions required to ensure steady operation of landline and mobile communications in Crimea and the city of Sevastopol. Not long after that it was announced that Rostelecom built a fiber optic undersea channel linking Russia and Crimea across the Kerch Strait.

### COMNEWS

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