

Russian Satellite
Communications Company

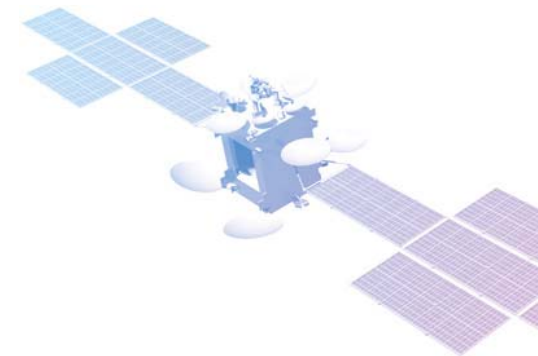
Broadband & Satellite Russia Newsletter

No 67

January 09-31, 2014



Russian Satellite
Communications Company



The World is United
via Satellite Communications



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Sources: ComNews.ru, Vedomosti.ru, CNews, Digit.ru, Izvestia

Digital & Connected TV Russia 2014:

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- ✓ *Professional discussions on topical market issues, opinions of regulators and key industry representatives*

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- Digital television in Russia in the 2015 perspective: what's next?
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- New content-based pricing for Internet traffic
- Revolution in TV audience measurement: new challenges
- New sound capabilities of digital broadcasting
- Opportunities of content delivery networks (CDN) for OTT and IPTV operators
- Effective schemes for collaboration between pay TV service providers and manufacturers of smart TVs
- Joining efforts: tasks and objectives of Internet-video association of online cinemas
- Legalizing online content through collaboration with online cinemas
- Online video vs conventional TV: cannibalization or marriage?

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❖ Contract For New Satellite Could Go To Foreign Manufacturer

Russian company JSC “Academician M.F. Reshetnev “Information Satellite Systems” controlled by Russian Federal Space Agency (Roscosmos) may miss a billion-worth contract for a communications satellite construction. Airbus (former European Aeronautic Defence and Space Company (EADS)) represented by Airbus Defence and Space (known as Astrium) has proposed better price and delivery deadlines to the state customer.

Four bidders participate in the tender for construction of a heavy communications satellite Express-AMU2 with posted initial price of \$165 million: US/Canada MDA Corporation (offered \$160 million dollars), China Great Wall Industry Corporation (\$157 million), Russian ISS-

Reshetnev (\$151 million) and European Astrium SAS (\$137 million). This way, Astrium offered a discount of nearly \$28 million against the initial price and, moreover, they are ready to execute the order within the shortest term compared with other contenders – in less than two years.

Apart from contract price and delivery period, other contract award criteria include bidder’s credentials and quality assurance. The state customer – Russian Satellite Communications Company (RSCC) is satisfied with the pricing proposals they received. “We didn’t expect such price dispersion, but we were pleased with it”, says Deputy CEO of RSCC Ksenia Drozdova. “They call it tender for a reason, manufacturers are supposed to outbid their competitors.” ❖

❖ MegaFon To Unite Its LTE Network With Yota

MegaFon is going to purchase from Scartel their LTE infrastructure which it currently uses under the MVNO (mobile virtual network operator) model, unveiled a source close to MegaFon and also another one – an investment banker. The decision has been made, but it still needs to be upheld by the management board, specified the first source. A representative of MegaFon confirmed the company’s plan to buy out Scartel’s infrastructure.

In April 2012, Scartel was the first in Russia to launch a fourth generation (LTE) mobile network. It wasn’t until a few months later, in July 2012, that MTS, VimpelCom, MegaFon and Rostelecom were awarded licenses to develop LTE. However, MegaFon stroke a deal with Scartel and launched LTE services based on Scartel’s network at the same time with the latter. In the summer 2012 both operators

became part of Alisher Usmanov’s Garsdale Services Holding, and in August 2013 MegaFon announced acquisition of Scartel (owner of LTE network) and Yota (service provider using the brand Yota) for \$1.18 billion. Scartel and Yota were merged into one company.

MegaFon currently has to pay its subsidiary for network usage, and after Scartel’s infrastructure is merged with MegaFon’s network there won’t be need for such payments. Some market insiders believe that MegaFon will be able to optimize costs of Scartel’s LTE infrastructure maintenance by using their own billing and other systems, while Yota will be reduced to a few dozens of employees. In August 2013 MegaFon reported that Yota was catering to 605,000 individual and 43,000 corporate customers. Neither company would disclose Yota’s subscriber base to date. ❖

❖ Rascom Arranged Circuit For Yandex

RASCOM used its DWDM system to arrange a 100 Gbps capacity circuit for Yandex which will connect together the Internet company's technological sites in Moscow and Helsinki. A new data-center of Yandex is currently being built in Mäntsälä, the suburb of the Finnish capital.

Rascom's General Director Vitaly Kireev reminded that in April 2013 his company had installed 100 Gb optical transportation Ciena equipment at their networks. "Step by step, carriers migrate to using links with higher capacity, and, by our forecast, demand for 100 Gbps will be growing in the next years", Kireev emphasized. "Yandex company has become the first customer to lease a 100 Gbps capacity circuit."

"In August 2013, Yandex launched construction of a new data center in Helsinki suburb", commented Andrey Korolenko, data-center construction project manager. "One of the stages in the project implementation is to connect the new data-center with Yandex's Moscow-located technological sites. Rascom, in partnership with Ciena Corporation, will provide us a 100 Gbps circuit which will assure that we can use the capacity to be leased to the fullest extent, thus, maximizing the economic effect from the project." ❖

❖ LTE Going International

The first multilateral roaming agreements between Russian mobile companies and foreign LTE service providers are unlikely to be signed until the second half 2014, analysts say.

According to a study by J'son & Partners Consulting (J&P), the number of subscribers who don't use data roaming abroad is still significantly higher compared with those who ignore voice roaming services. An increase in data roaming users is the main revenue growth driver for operators, note authors of the study. However, in

their opinion, LTE networks not only spur data traffic, but also entail certain difficulties for operators.

As of December 2013, states the J&P report, LTE roaming worldwide is still in the initial stage. Firstly, LTE roaming only concerns with one element of roaming – mobile data services. Secondly, very few operators worldwide (about 20) have entered into agreements for the international LTE roaming, and most of the existing agreements are bilateral, rather than multilateral. ❖

◆ 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.” ◆

❖ GSC To Order Spacecraft For \$282 Million

Executive board of Gazprom Space Systems (GSC) endorsed in the end of December 2013 a contract with Thales Alenia Space France (TASF) and International Launch Services (ILS) for turnkey manufacturing, launch and orbit insertion of a Yamal-601 satellite for GSC, informed RIA Novosti.

Total contract value could be up to \$282 million. All works are due to be completed within 28 months from starting date. Thales Alenia Space France will act as prime contractor, while ILS will launch the spacecraft into orbit.

To reduce launch-vehicle-related risks, GSC will team up with Sea Launch AG to explore the possibility and conditions of reserve launch services using sea-based launch system.

Yamal-601 will be the sixth communications and geolocation satellite in the GSC's constellation. Four of the company's spacecrafts are already operating in the orbit. The fifth – Yamal-401 is currently under construction and is scheduled for launch in 2014. Gazprom Space Systems (previously known as Gascom) was founded in 1992. Its stock is divided between Gazprom OJSC (79.8%), Korolyov Rocket and Space Corporation Energia (16.16%) and Gazprombank (4.04%). ❖

❖ One Third Of 3G Video Content Lags

More than a third (37%) of all video streams in Russian 3G networks tend to lag and require repeated buffering, which results in negative user experience and high rate of cessation of viewing video content on mobile devices, says a study by Skyfire. The study also revealed that with 28% of all video streams in Russian 3G networks, lag and buffering time exceeds 10% of total video length. According to Skyfire, Russian 2G networks are even less adapted: more than 99% of all video lags, and in 96% cases, lag and buffering time exceeds 10% of total video length.

The results of the study show that more than 16% of all video content in Russian 3G networks is streamed at 300 Kbps and less. In order to view HD videos on mobile devices data throughput must be 5 to 10 times as much. The figures released by Skyfire match the results of a study conducted in Russia by On Device Research Company last December.

According to Cisco's forecast, in 2012 – 2017, mobile video traffic in Russia will spike by 22 times, annually growing 85%. By 2017, 58% of all mobile data traffic in Russia will be accounted for by video, compared with 43% at the beginning of 2013. ❖

❖ MTS Builds Satellite Network

Russia's largest mobile operator MTS launched construction of own VSAT network in Siberia and the Far East in order to connect its base stations in remote areas, communicated a spokesman for MTS Alexey Merkutov. According to Mr. Merkutov, the company intends to invest \$7.14 million into the project, which is expected to pay back in slightly more than two years. A source in the company unveiled that the network will be built by an affiliate of MTS – NVision Group, a system integrator which won the contract through an open tender procedure. Both share a

parent company – Sistema JSFC. Today, MTS's remote base stations are connected through satellite channels leased from various independent providers of satellite communication channels. Overall, the VSAT will connect 142 base stations. An own VSAT network will help to reduce operating costs, as the company won't be leasing satellite channels in the VSAT coverage areas. It will also allow expansion of MTS's mobile network channel, which was expected to be turned fully 3G in 2013, by 45%. ❖

❖ Army Needs 4G

In two years, the Russian army hopes to have a wireless communications system for the battle area working in LTE Advanced, which is an evolution of LTE (4G) technology developed by civil mobile service providers. As follows from the Scope of Work issued by Ministry of Industry and Trade, the prototype equipment – mobile base stations, three user stations and a network controller should be put into trial operation in 2016. \$4.57 million is allocated for the R&D stage of the project.

Download speed for all types of multimedia content (sound, video, maps) will be 100 Mbps and more. The network will be adaptive – in

case of interference and conflicts, both transmitter and receiver will switch to another frequency to avoid jamming by the enemy.

The broadband network has to be encrypted, but it will support commercial operators' networks. Frequency spectrum allocated for the LTE technology is currently shared between the government and mobile operators. Base stations for the new network will be mobile and based on the KAMAZ trucks. Such stations are also employed by commercial operators. ❖

❖ Yota Ramping Up 4G

Scartel (Yota brand) started to connect subscribers to its LTE networks in six cities of Russia - Omsk, Penza, Cheboksary, Kirov, Ulyanovsk and Irkutsk. In Q1 2014, the company will launch subscriptions in 10 cities more, communicated Yota's General Director Igor Torgov, but the

company's press service wouldn't disclose in which exactly. Earlier, Yota launched 4G networks in more than 25 cities. ComNews has already informed that MegaFon decided to keep 'Yota' brand after the acquisition of Scartel. ❖

❖ Will LTE Kick TETRA Out?

Experts disagree on whether TETRA and other Professional Mobile Radio (PMR) standards will be replaced by LTE networks in the next 5-7 years, as a result of increasingly demanding requirements to the quality of data services.

The study “Broadband services, perspectives of implementation in the professional mobile radio connection (PMR) based on LTE” conducted by J’son & Partners Consulting concludes that TETRA-based and other PMR standards do not meet modern standards for “heavy” content (video streaming, large files transfer, etc.).

“In this connection, the most likely to replace PMR standards on a mid- and long-term horizon, would be the LTE technology, which is rapidly becoming popular worldwide”, analysts say.

In 2013, a task team of TCCA (TETRA Critical Communications Association) put forward an assumption that LTE won’t be possible to use for mission-critical and emergency communications until 2018, and the soonest that VoLTE quality suitable for such users could become possible is 2020.

According to Director of Gvardia-plus Ltd. Alexander Odinsky, the forecast made by J’son & Partners Consulting is inconsistent, as LTE systems lack specific equipment required by security agencies and industrial users, and besides, such system migration wouldn’t be feasible for the government.

“In the coming 5-10 years LTE won’t replace TETRA, because it’s a proven system, which all security agencies are pleased with”, concluded Odinsky in an interview to ComNews. ❖

❖ Ministry of Defence Choking Up LTE for Osnova

Ministry of Defence keeps trying to grab LTE frequency from Osnova Telecom. The spectrum band awarded to the company is “jammed to the rafters” with military and policy facilities, and it shouldn’t even have been allocated for commercial use, explained an insider.

In December 2013, Deputy Minister of Defence Yury Borisov addressed a letter to Minister of Communications and Mass Media Nikolay Nikiforov, where he asked to revoke frequency allocations from Osnova Telecom. The State Commission for Radio Frequency (SCRF)

awarded Osnova with spectrum in the 2.3-2.4 GHz band on September 8, 2011, recalls Borisov. This resource could be used by the company upon one condition: Osnova Telecom had to become exclusive provider of mobile wireless services for the Russian armed forces. This stipulation wasn’t fulfilled, and on that ground Borisov suggests that the next meeting of the SCRF addresses the matter of cancellation of the Commission’s decision from September 8, 2011. ❖

❖ Ministry Of Communications And Mass Media Is Back To Frequency Conversion

In 2012-2013, no spectrum held by the security agencies was released to develop civil 4G in Russia due to legal gaps, establishes audit report on the Ministry of Communications and Mass Media, conducted last year by the Accounts Chamber. In 2014–2015, conversion financing will be cut down by \$8.6 million. But representatives of the Ministry announced that they have already developed a plan, according to which the process will be sped up through additional financing.

The Key Focus Areas of the Russian government in the 2018 perspective stipulate acceleration of frequency spectrum conversion.

However, notes the Accounts Chamber's report, "no related measures were implemented" in 2012 and 2013. The reason of that is a legislative lacuna: "the mechanism for collaboration, organization, and financing of works hasn't been established". A source in the Ministry informed that the authority realizes the importance of conversion and has already prepared a set of documents, which will speed up the release of radio frequency resource to enable joint operations of the military and civil telecommunication equipment. ❖

❖ 700 Thousand Muscovites In GPON

Moscow City Telephone Network (MGTS) communicated that its GPON (high-speed optical technology) subscriber base increased more than 3.5 times in 2013, and exceeded 700,000 users. In the past year, MGTS more than doubled its GPON network capacity. Today, GPON-based telephony, Internet and digital TV is available to almost half of Moscow households.

According to the company, the number of its customers using bundled services over GPON was up by almost 4 times over the year and reached 300,000. MGTS has been growing its broadband

subscriber base by switching users from copper lines to state-of-the-art GPON network. Every second subscriber to broadband Internet services switched to GPON which enables higher quality of Internet access, HDTV, and etc.

The project of switching MGTS network from copper to optical technology started in 2011 and will be completed in 2015. GPON network has been made technically available to 2 million households in all districts of Moscow. Overall, MGTS' plan foresees to connect about 4.4 million subscribers to GPON. ❖

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