## **SAMSUNG**

## Samsung and Mobile TeleSystems Sign MoU to Collaborate on Next Generation Technologies

Strategic partnership covers LTE-Advanced Pro, IoT, 5G, and more

**Seoul, Korea – September 26, 2016 –** Samsung Electronics Co., Ltd. and Mobile TeleSystems (MTS), the leading telecommunications operator in Russia and the CIS, announced today a Memorandum of Understanding (MoU) to jointly explore and advance new telecommunications technologies.

The newly signed MoU specifically covers technologies viewed as essential for advanced communications, including advanced Carrier Aggregation, Multiple-Input Multiple Output (MIMO) technologies, LTE Broadcast (eMBMS), Multi-path TCP (MPTCP) as well as IoT technologies such as NB-IoT and LTE-Machine. The two companies will conduct multiple tests to enhance data communication speed, leveraging 4G infrastructure through advanced Carrier aggregation, MIMO and MPTCP.

"Samsung is pleased to sign this MoU with MTS as it proves our successful partnership around LTE. We are confident that this collaboration will play a key role in leveraging advanced technologies to bring everyday benefit to the lives of Russians," said Dong Soo Park, Executive Vice President of the Networks business at Samsung Electronics. "Based on Samsung's strengths in 5G and IoT, we look forward to supporting MTS in solidifying their position as an innovative telecommunications leader by discovering new opportunities for the commercialization of 5G."

Through its collaboration with Samsung, MTS will also be able to broaden opportunities for new services and applications, such as IoT. The MoU involves diverse IoT network technologies, including 3GPP based NB-IoT and LTE-M. As network requirements like data rates, spectrum bandwidth and battery life vary by diverse IoT use cases, MTS and Samsung will find and select the best technology suited for each business case.

As 5G will play a significant role in providing ultra-fast data communication with low latency and new spectrum efficiencies, the two companies will also work together for 5G by creating new opportunities through 5G trials.

"MTS is consecutively working on preparation of its network in Russian regions for 5G technology deployment, and signing memorandum with Samsung is another important step on that way. Paying close attention already now to innovative research and development, when new standard requirements are still under formation, we build a basis for quick 5G implementation in future, considering growing subscriber needs and changing environment on country's telecom market. Commercial deployment of new technologies, including an area of IoT, will make it possible for us to occupy new market niche in both corporate and mass market domains." – concluded MTS Vice President of technology Mr. Andrei Ushatskiy

Samsung and MTS have been working together since 2013 to establish LTE networks in cities across the North-West Federal District of Russia, including St. Petersburg and the Leningrad regions, Pskov, Komi, Arkhangelsk, Murmansk, and others. The two companies will continue to expand their mutual long-term business cooperation with a focus on 5G.

Since the late 2000s, Samsung has been continuously investing in experiments and studies involving 5G based technologies, with a primary focus on 5G commercialization technology since 2014. Through its efforts, Samsung's milestone 5G technology developments have included the world's first handover demonstration in a multi-cell mmWave network, a 5G channel modelling tool to significantly reduce the time and labor required for 5G network planning, and RF technology essential in miniaturizing devices and equipment. Samsung has also played a key role in contributing to the formation of 3GPP standards, and holds essential patents for the new 5G standards, expected to be finalized in 2018.

For more information about Samsung's 5G innovation, please visit https://news.samsung.com/global/samsung-and-mobile-telesystems-sign-mou-to-collaborate-on-next-generation-technologies

## **About Mobile Telesystems PJSC**

Mobile TeleSystems PJSC ("MTS" - NYSE:MBT; MOEX:MTSS) is the leading telecommunications group in Russia, Central and Eastern Europe. We provide wireless Internet access and fixed voice, broadband and pay-TV to over 100 million customers who value high quality of service at a competitive price. Our wireless and fixed-line networks deliver best-in-class speeds and coverage throughout Russia, Ukraine, Armenia, Turkmenistan and Belarus. To keep pace with evolving customer demand, we continue to grow through innovative products, investments in our market-leading retail platform, mobile payment services, e-commerce and IT solutions. For more information, please visit: <a href="https://www.mtsgsm.com">www.mtsgsm.com</a>.

## About Samsung Electronics Co., Ltd.

Samsung Electronics Co., Ltd. inspires the world and shapes the future with transformative ideas and technologies. The company is redefining the worlds of TVs, smartphones, wearable devices, tablets, cameras, digital appliances, printers, medical equipment, network systems, and semiconductor and LED solutions. For the latest news, please visit the Samsung Newsroom at <a href="news.samsung.com">news.samsung.com</a>