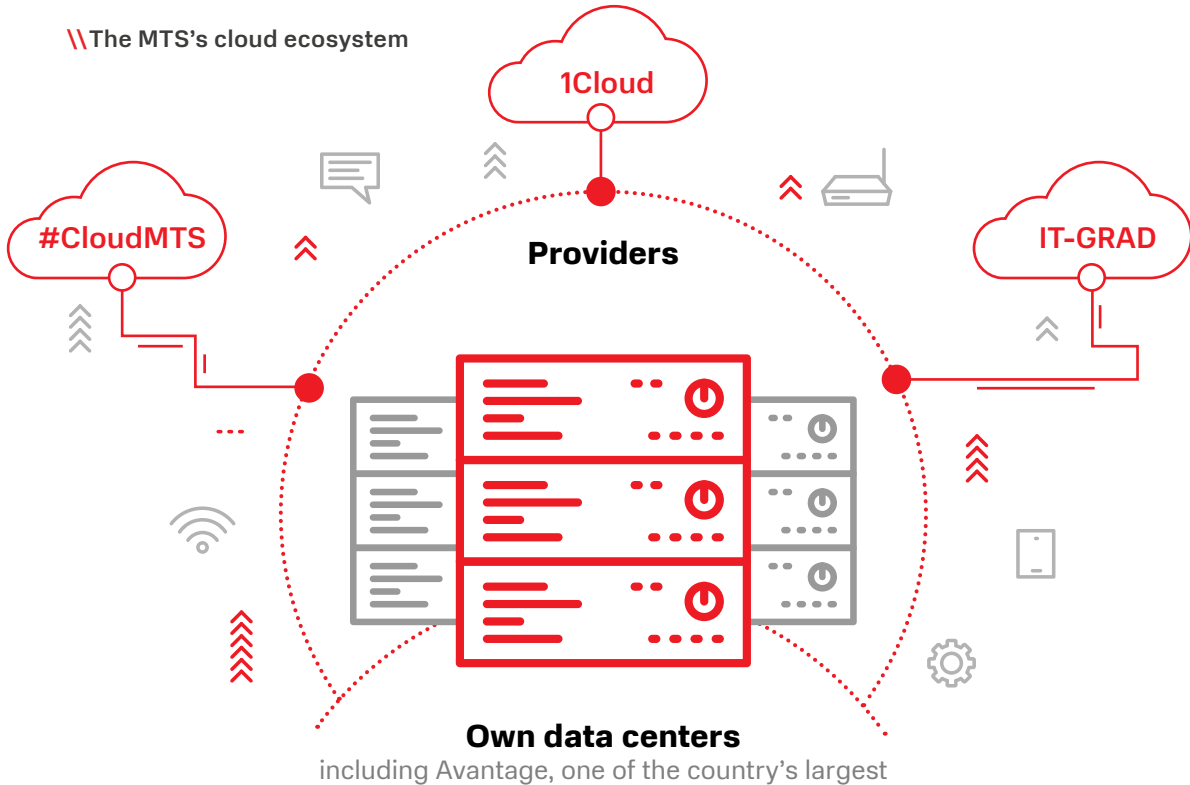


INNOVATIVE GROWTH AREAS

In 2019, the Company merged three digital areas – cloud services, IoT and corporate system integration – into a single business vertical, Cloud and Digital Solutions. Cloud services are the foundation for both driving innovation within the Company and enabling the digital transformation of the national economy.

CLOUD SOLUTIONS

\ \ The MTS's cloud ecosystem



MTS's cloud portfolio includes infrastructure solutions based on private, public and hybrid clouds, a range of advisory and professional services, as well as data center and telecom services. Our extensive portfolio of B2B and B2G services and solutions, broad geographical footprint stretching from Kaliningrad to Vladivostok, and our focus on innovative service development helped MTS quickly ramp up its presence in Russia's cloud market. During the year, we launched a number of cloud services, for example an antivirus for the public cloud, a completely new service for the Russian market developed jointly with Kaspersky Lab, as well as container computing and DevOps services.

New digital service lines at MTS are developed mainly based on our own cloud. The **SmartMed** telemedicine service uses a certified MTS's cloud segment to store electronic patient records. Our own cloud resources also power the **Smart University**, an e-learning platform, making it possible to adapt the service to the increasingly heavy content of training materials and video lessons. The media platform for gamers, **WASD.TV**, also uses #CloudMTS resources, which ensures high availability, performance and scalability of the service. These benefits of cloud technology are important for any business driven by digital models.

MTS STARTUP HUB

MTS StartUp Hub, our innovation launchpad, includes a corporate accelerator, a 5G incubator, MTS's venture capital fund and international offices. Accelerated development of startup teams is carried out through mentorship, training and expert support to prepare products for piloting within the Company. The accelerator conducted four startup intake campaigns, with over 3,000 teams applying and 58 teams completing the accelerator program. A total of 46 pilots were launched, with 19 of those progressing to the scale-up stage.

In 2019, the accelerator held two startup intake campaigns. Following the spring startup intake campaign, ten pilots were launched in HR, e-sports and fintech. The autumn startup intake campaign brought in 450 applications, a record-high number, with 19 startups selected as accelerator participants.

Over the year, MTS StartUp Hub turned from a corporate accelerator to a genuine open innovation springboard. A **5G Center** was launched at VDNKh in 2019 within MTS StartUp Hub to test startup products in next-generation networks. Nine startups became the Center's tenants, selected out of some 100 candidates, including two international ones. The tenants receive expert and technical support from MTS, with the teams coming up with the best solutions awarded a development grant of up to RUB 500 thousand.

MTS's RUB 1 bn **corporate venture capital fund** was also established in 2019, investing upwards of USD 500 thousand in seed¹ and Series A rounds. The fund is focused on promising startups with strategic value for MTS in areas such as AI, ML and Big Data, IoT, fintech, cloud technology and SaaS, edutech, e-sports and media.



>3,000

teams submitted applications



RUB 1 bn

MTS's venture capital fund,
set up in 2019



MTS StartUp Hub also launched a number of international offices, with our tech scouts now operating in Germany, Israel and Southeast Asia. MTS also signed partnership agreements with Enterprise Singapore and Invest India government innovation support agencies for assistance in innovation sourcing in international markets. Our partnership with Enterprise Singapore also provides MTS's accelerator program participants with access to the Southeast Asia market.

MTS plans to have two startup intake campaigns for its corporate accelerator in 2020 and launch over 15 pilots during the year. MTS's venture capital fund plans at least two startup deals for 2020, subject to the 5G Center conducting several successful technology solution demos in a 5G network.

¹ A seed round is (minimum) targeted support provided to developers to convert an idea into a product or service. The outcome of the investment is an established team with a clear business plan.