

TELUS unlocks the possibilities of 5G mobile edge



Overview

TELUS supports customer connections that span wireless, data, IP (Internet Protocol), voice, television, entertainment, video and security, healthcare, and agriculture. The communications and information technology company works closely with customers and partners to help them take advantage of 5G, specifically 5G edge, to accelerate their digital transformation journeys. TELUS teamed up with partners such as Red Hat to trial 5G mobile edge use cases across a variety of industries.

Question: Why does TELUS believe 5G edge is so important?

Ibrahim Gedeon, Chief Technology Officer for TELUS in Canada, answers: At TELUS, we believe the 5G disruption will help people transform much smoother and faster. Cloud is a huge part of an enterprise's digital journey, and where cloud and 5G meet is where the digital journey begins; moreover, one cannot exist without the other. We believe that for 5G edge to work and benefit people, it needs to be part of both the cloud and the digital journey. The key is inserting 5G as a critical part of the transformation, whether end users are rewriting their applications, revisiting how they implement cloud, or reaping the benefits of their digital journey.

Question: What has TELUS been doing in the 5G edge space?

Gedeon: A lot of the work we are doing at TELUS is changing how we do business. Once we look at change from a mobile edge point of view, the next thing to focus on is latency. 5G brought down the latency for traditional wireless networks.

4G technology requires a core beside every base station. 5G mobile edge addresses that and so are we. 5G is about massive broadband and low latency, and the ability to prioritize critical versus non-critical. We will roll out our standalone cores and our mobile edge compute to facilitate that functionality.

Question: What benefits does 5G edge bring?

Gedeon: The cost of using 5G. The 5G business-to-business-to-consumer model benefits the entire ecosystem and should drop to a tenth of the cost if we rally around as an industry.

TELUS has supported digital health in Canada and around the world since 2006. We also invested in three additional industries: oil and gas, automotive, and agriculture.

Question: What benefits are you bringing to oil and gas?

Gedeon: We are working with Suncor, our oil and gas partner, to create a mobile network with abstracted TELUS, in a box, to allow for low latency. Autonomous haulage systems (AHS) are a key part of Suncor's strategy. This empowers the autonomous vehicle to be a real-time monitor with intervention, so one person can drive many vehicles. It is not just about saving the cost of wages, it is about making transportation 24x7, autonomous, and safer with the right sensors. These benefits are more important in places where the temperature gets below 50 degrees Celsius in the winter.

Question: What benefits are you bringing to automotive?

Gedeon: We are supporting General Motors vehicle-to-vehicle communications. We built an entire 5G network to trial on a test track. While the telecommunications service providers were building their 4G and 5G networks, the car manufacturers were building self-driving cars. Bringing them together makes sense because latency dropped between the car and the network. One day, cars will talk to other cars at the same base station.

Question: What does smart farming look like?

Gedeon: We are looking at two aspects of smart farming. For the protein-harnessing applications use case, we are running trials in tracking and Internet of Things (IoT) sensing to apply the right software for multiple points of data at the edge. This technology works with the mobile edge.

Visual inspection is another use case we are looking at. Farms are fairly large in North America, and farmers could take two to three days to complete a visual inspection in their truck. It is important to think of mobile edge for curating the data and running the software applications to yield the right results, allowing flying drones or robots to do these tasks, collect that data, and process it.

Question: Is there a willingness to invest in 5G mobile edge?

Gedeon: These are real-life applications with real benefits, whether for better outcomes in agriculture or driving health and safety and creating headroom for 24x7 operations in oil and gas. This is important when we talk about 5G and get excited about the edge.

Nobody is going to spend billions of dollars building 5G networks so my 10-year-old son and I have a better experience playing video games. But there are real-life use cases, and I believe other operators need to take the lead by assessing how 5G can make things better and bring down the joint total cost of ownership.

About TELUS

TELUS is a dynamic, world-leading communications and information technology company with \$16 billion in annual revenue and 15.2 million customer connections spanning wireless, data, IP, voice, television, entertainment, video and security, healthcare and agriculture. <https://www.telus.com/>

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