

Swisscom: 5G in research, for public safety and for business customers

As a technology leader, Swisscom drives forward innovative 5G projects, which offer customers a wide range of applications with 5G and demonstrate the outstanding potential of this generation of mobile communication. Together with the University of Applied Sciences and Arts Western Switzerland, Swisscom is undertaking research with 5G projects in relation to the virtualisation of network functions (NFV). For public security, Swisscom is testing various applications, and mobile private networks demonstrate the possibilities for business customers.

The School of Engineering and Architecture of Fribourg (HTA-FR), a member of the University of Applied Sciences and Arts Western Switzerland, and Swisscom will in future work together with the School on 5G projects in the area of Network Function Virtualisation (NFV). The goal of NFV is to make the network functions of routers, switches or, for example, firewalls software-based. For this purpose, Swisscom is providing the University with an infrastructure for research projects in the area of 5G/NFV. The aim is to jointly develop IT solutions on the Edge cloud for security, network slicing for mission critical communication, and mobile private networks. Philippe Joye, Head of Computer Science and Telecommunications at HTA-FR, says: "Teaching and application-oriented research aim to strengthen the competitiveness and innovative strength of our economy as directly and sustainably as possible. We appreciate the trust that Swisscom has placed in us with this specific partnership."

5G for Public Safety

5G offers great potential for public safety in particular. Swisscom tests different scenarios based on the real requirements of emergency organisations: secure communication under all conditions in alternating task forces, in geographically defined areas, or even the targeted temporary tracking of task forces for their personal protection. Other applications include live streaming of video via drones or bodycams and the early detection of traffic flows based on anonymous and aggregated data from mobile communication systems. All in all, the guaranteed data traffic will become a fundamental aspect for emergency services in all situations, in order to ensure the control rooms can make the right decisions based on a multitude of information, such as voice, images and videos.

Mobile Private Networks for Companies

Mobile Private Networks show how 5G can simplify the network infrastructures in companies. For this purpose, local 5G mobile communication networks are set up within companies. The entire networking of company devices such as workstations, smartphones or production machines then takes place uniformly in closed, private 5G networks. These are characterised by high performance and greater security. These secure and closed networks do not end at the physical boundaries of the company, instead they seamlessly merge into the external mobile communication network – data traffic, however, is only generated within the company's own private network. They address the security requirements of data storage for sensitive business data.

The Mobile Private Networks integrate existing components of such an infrastructure, such as security, cloud, local networks (LAN) or solutions for the integration of mobile devices. In the future companies will be able to implement significantly more business processes via mobile communications, thereby reducing the multitude of technologies and lowering costs.

Swisscom on Course for 5G Expansion

Swisscom is pushing ahead with the expansion of the 5G network and will be able to supply 90% of the Swiss population with 5G by the end of the year. In doing so, Swisscom is introducing 5G on different frequencies. The frequencies 1800/ 2100 MHz are suitable for wide area coverage and the 3500 MHz frequency offers excellent capacities and top speeds. Swisscom differentiates here between 5G-fast (lower coverage with up to 2 Gbit/s or more) and 5G-wide (Swiss-wide 5G coverage with up to 1 Gbit/s). Swisscom will therefore be ready when the corresponding end devices that support 5G-wide are expected in the first quarter of 2020.

In-house 5G Provision at HeroFest

From 22–24 November 2019 HeroFest will take place in Bern at the Bernexpo. Swisscom will provide a mobile in-house system with the latest generation of mobile communication, 5G, at the festival for gaming, eSports and cosplay. At the Swisscom stand you will be able try cloud gaming with 5G smartphones. 5G is ideal for gaming – which needs high bandwidths and minimal latency – and 5G offers both.

Further information at: www.swisscom.ch/5g

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