

Media Release

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A world-first: Sunrise and Huawei reach the fastest 5G connection in Switzerland

- **Sunrise and Huawei conduct the world's most extensive 5G test in Switzerland:**
 - **Using cloud-based core network end-to-end applications, 5G performance was demonstrated via virtual reality, 360-degree panoramic live video, and twelve parallel 4K video streams on 65-inch UHD TVs.**
 - **Guests from the business, politics and civic sectors, along with members of the media, watched as the download data throughput reached a world record level of 3.28 Gbit/s in the 3.5 GHz (band 42) frequency band.**
 - **A special network configuration, dedicated to Switzerland (3.5 GHz, band 42), was set up and used in the tests and 5G lap at Sunrise headquarters in Zurich Oerlikon. The same configuration will be applied from 2020.**
 - **Additionally, four tons of equipment, two cranes and 50 kW of additional power (100% renewable energy) were needed for the 5G lab setup. The preparation work started several weeks ago.**
- **Sunrise continues to drive its quality strategy and now aims to set new benchmarks with 5G.**

"We are The Unlimited Company, and we are already driving digitization today with the best 4G network and the highest 4G coverage in Switzerland. 5G will be a game changer, and, to me, it's another important step up. Being the leading 4G provider, we naturally have high ambitions for the fifth generation of mobile phone technology as well. Once the world's toughest NIS regulations are finally relaxed and the spectrum is allocated in a competitive way, we will be able to do it and set new benchmarks with 5G yet again," asserts Sunrise CEO Olaf Swantee.

"We have already demonstrated 5G at various global events, but what we managed to show here with Sunrise is unprecedented and impressively demonstrates the performance capability of 5G. It's a full commitment from Huawei to make sure, that Sunrise can keep the leading position in the mobile network with 5G in the future," says Xiao Haijun, CEO of Huawei Switzerland.

After huge success in the connect mobile network test, in which Sunrise was the test winner and recognized as the best mobile network, it's no coincidence that, in partnership with Huawei, it was able to deliver a world-first event with their 5G demo in the 3.5 GHz (band 42) frequency band.

Extensive 5G demo

Olaf Swantee (Sunrise CEO), Elmar Grasser (Sunrise CTO) and Dong Gang (President Carrier Business Western Europe Huawei) carried out the demonstration, with guests from the business, political, civic and media sectors in attendance. The following core network end-to-end applications, including cloud-based applications, were demonstrated:

Equipment	5G antenna with 64 x 64 massive MIMO
Speed and latency	The highest data download speed ever measured - 3.28 Gbit/s in the 3.5 GHz (band 42) frequency band - was achieved in the broadband test.
Practical application 1: Mobile 4K TV	The real capacity and performance of a 5G network was demonstrated by the cloud-based wireless transmission of twelve parallel 4K video streams, each at about 40-50 Mbit/s, for a total broadband requirement of up to 750 Mbit/s.
Practical application 2: Mobile virtual reality	Virtual reality applications demonstrated the ultra-fast network latency under real conditions and the overall stability of the 5G network.
Practical application 3: Mobile 360° video	360° live video from two camera locations also confirmed the ultra-fast network latency under real conditions and the capacity of the 5G network.

5G: fiber optics over the air

The fifth generation of mobile phone technology facilitates many new key functions. These include scalability for myriad services, the ability to allocate dedicated services and bandwidth (band/network slicing e.g. for emergency services and business-critical enterprise applications), extremely low latency (1 millisecond), a phenomenally high number of simultaneous connections (1 million connections per square kilometer), ultra-high link speeds (up to 10 Gbit/s), and much more. This means that in the future, many things that were previously only possible via wire lined fiber optics will be delivered over the air.

For example, as seen in Sunrise and Huawei's 5G demo, one 5G mobile wireless connection could easily replace the wired Internet access in a twelve-unit apartment block. Even with twelve data-intensive 4K TVs streaming in parallel, which require a total bandwidth of up to 750 Mbit/s, there is still extensive spare capacity at this early stage of 5G. This would allow each household to use even more Internet connections for broadband applications at the same time.

Sunrise 4G leadership

Sunrise is consistently pursuing its strategy as a high-quality provider, and the Company invests accordingly in its mobile network, innovative products and outstanding customer service. In only five years, it completed a remarkable transformation of its mobile network. With its 4G network, Sunrise has redefined the quality standard. Sunrise has been the test winner in the connect mobile network test twice in a row now, with the highest score ever achieved, even in worldwide comparison to 70 countries. Sunrise now delivers 94.6% 4G geographical coverage, the highest of any provider in Switzerland. In this way Sunrise enables broadband Internet connections in areas where satisfactory Internet access cannot be provided by a landline network.

[Link to video statements and pictures](#)

Sunrise Communications AG

Corporate Communications

media@sunrise.net

www.sunrise.ch

Phone: 0800 333 000

Outside Switzerland: +41 58 777 76 66