

China Ramping up Research into 6G

Description

?By Zhang Dan Source:Global Times

Work on next-generation network proceeds despite US pressure



With research being carried out in basic theories and 6G spectrum tests starting, China is positioned to translate its edge in 5G into a head start in the global race for the next generation of ultrafast wireless technology. Photo: VCG

As the US scrutinizes 5G telecom equipment provided by Huawei, and some in Europe set fire to 5G towers, companies and research institutions in China are looking into 6G – the sixth-generation mobile wireless network.

China Unicom and Chinese telecom equipment producer ZTE on Sunday agreed to research and develop the 6G network under a cooperation pact. They will discuss 6G prospects and technology trends, research key 6G technologies and cooperate on standards, according to Chinese industry news website c114.com.cn.

Telecom analysts said it's important for China to get a head start in 6G to raise Chinese companies' voice in the global telecommunications domain.

Some have estimated that 6G networks will be 10 times faster than 5G mobile networks – but they will need to take a decade to come out.

In the 6G era probably starting in 2030, ZTE said it will spare no effort in working together with China Unicom on key 6G technologies, including “space, air and earth integration technology,” terahertz

technology, and visible light communication.

China Unicom vowed to promote deep fusion among 6G and satellite networks, the Internet of Things, Internet of Vehicles and the industrial internet, the website said. Neither company had replied to Global Times requests for comment as of press time.

Ma Jihua, a veteran industry analyst, told the Global Times on Sunday that 6G will become the next decade's battlefield as countries all want to take the lead and have a strong voice in the telecoms market of the future.

Commenting on cooperation between China Unicom and ZTE, Ma said that "only by cooperating with multiple intersectional players in the industry, can the companies guarantee they would not be marginalized once 6G standards and technology are put into use."

Over the past year, 5G has become a politicized topic between the US and China. Washington has accused Huawei, the world's largest and most advanced telecoms equipment maker, of being a national security threat, but US was unable to provide any substantial evidence. Huawei has denied the claims.

Even if the US ramps up its efforts to crack down on China's 5G rise, China is one of the only two countries with a nationwide rollout of 5G so far, and the other is South Korea.

China's 5G user base has exceeded 85 million, ranking first in the world, research institute Zero Power Intelligence said.

As of February, Huawei had obtained 91 5G commercial contracts worldwide and shipped more than 600,000 5G Massive MIMO active antenna units, the backbone of 5G networks, financial media Yicai said.

"US telecom operators do not want to see Trump crack down on Huawei. They have cooperated with the vendor in setting telecoms standards," Ma said, citing the possible permission for Huawei and US companies to work together on 5G standards.

In an interview with the South China Morning Post, Huawei CEO Ren Zhengfei said that while Huawei has been working on 6G technology, 6G research has yet to make technological and other breakthroughs, so it won't be deployed in 10 years.

Fu Liang, a Beijing-based telecom industry expert, told the Global Times on Sunday that the communications network of the future, including 6G, will break the internet centralization structure and prevent one company or companies from one government from establishing dominance.

Researchers in different countries are studying which frequency band 6G should adopt, and whether it will include satellites to form a space-Earth connected network, analysts said.

"But one thing is certain: China's 6G research is more advanced than 5G due to a large and very sophisticated talent base, solid technical experience and strong application demand," Ma noted.

"The gap is widening, whether in the fiber-optic broadband technology or in mobile networks... If China uses a 'heavy machine gun' while the US holds a bow and arrow on the 6G battlefield 10 years from

now, there won't be a competition between the two in the telecoms sector," he said.

On Sunday, which marked the 51st World Telecom Day, Vice Minister of Industry and Information Technology Chen Zhaoxiong said that China has opened more than 200,000 5G base stations as the country's commercial 5G roll-out speeds up.

The digital economy accounts for more than one-third of China's GDP and contributes more than 50 percent of its economic growth now.

Ma said that the three Chinese telecom operators have tripled their investment in 5G over the past year. The coronavirus epidemic has stimulated China's policy support for 5G, along with consumers' increasing demand for a faster internet during telecommuting, online education and livestreaming.