

# BUSINESS

## Innovation smooths bumps in 5G rollout

Huawei working with telecom carriers for tech, industrial solutions to face the challenge of insufficient sites

By **MA SI**  
masi@chinadaily.com.cn

As the world is at the tipping point for large-scale 5G network rollout, the global telecom industry faces a common challenge: how to quickly and efficiently find enough sites for 5G base stations.

It is a grave challenge, for 5G technologies use a higher frequency than 4G, and each 5G base station covers a smaller area than its 4G counterpart. Moreover, 5G will see wider industrial use, further increasing the demand for network coverage. As a result, far more base stations, with some estimating as much as three times base stations, are needed in the 5G era than in the 4G era.

To overcome the difficulty, Huawei Technologies Co, the world's largest telecom equipment maker, is working with telecom carriers and tower operators including China Tower Corp on innovative technological and industrial solutions.

"The challenge of acquiring 5G sites and the growing 5G network density represent a key contradiction that affects large-scale 5G deployment," said Qiu Zheng, vice-president of site domain at Huawei's wireless product line.

Also, contrary to public perception that telecom equipment accounts for the majority cost of base stations, Qiu said every \$100 that telecom operators invest in base station construction, \$60 is spent on site acquisition, civil work, power supply, and other auxiliaries.

The estimated proportion is even higher in the research of the global telecom industry association GSMA Analytics. According to its study, 80 percent of the total construction cost of base stations lie in site acquisition, civil work, power supply, and other auxiliaries.

With this in mind, Huawei has launched the Open Site initiative to convert utility poles into telecom poles, helping operators with massive 5G site acquisitions and optimized site costs.

Under the initiative, Huawei has collaborated with multiple partners to jointly provide 5G sites quickly and efficiently. Major achievements



Technicians check the internet speed at a newly built 5G base station in Haikou, Hainan province. PROVIDED TO CHINA DAILY

**“The challenge of acquiring 5G sites and the growing 5G network density represent a key contradiction that affects large-scale 5G deployment.”**

**Qiu Zheng**, vice-president of site domain at Huawei's wireless product line

have been made in promoting site approval simplification, as well as developing open 5G pole site standards, which are essential for preparing public resources for long-term 5G development.

In Shanghai, for instance, Huawei has partnered with the municipi-

pal government to draft standards on how to better facilitate large-scale pole site deployment with reduced costs.

Moreover, Shanghai has rolled out plans to provide 30,000 5G sites by the end of 2020 simply by building or turning utility poles into telecom poles along its 500-kilometer roads. That is equivalent to 75 percent of the current total number of 5G sites in Shanghai.

"If without the plan, it takes about 12 months for telecom tower operators in China to find proper sites by going through the sophisticated processes of mapping sites and negotiating with property management companies for good rentals and stable power supply," Qiu said, adding that in the United Kingdom, the process could even take as long as 36 months.

But with the Shanghai plan, telecom base stations can be directly equipped to the 30,000 5G-ready poles, greatly saving time and boosting efficiency, the executive said.

Tong Jilu, chairman of China

Tower Corp, which manages most of China's telecom towers, said the company has already prepared more than 10 million towers and poles for 5G by leveraging the existing resources of railway, real estate, power grid, transportation and other sectors.

"About 80 percent of micro 5G base stations nationwide will be hung on existing electric poles, light poles and other forms of towers, which will dramatically lower the costs and quicken the rollout of 5G in China," Tong said.

Foreign countries including Japan, the UK and South Korea are also jumping on to the bandwagon. In Germany, for instance, telecom operators have partnered with seven departments to draft and publish the guidelines in August on how to better open public resources including traffic lights, bus stations and road signs to the telecom sector for potential 5G sites.

Multinationals including Signify, formerly Philips Lighting, Schreder and JCDecaux Group, the largest independent outdoor advertising

agency in Europe, are also responding positively to its initiative to address the challenge of sites acquisition, Huawei said.

On top of making it easier to acquire 5G sites, Huawei also has innovated a slate of simplified solutions to lower costs for telecom carriers, including reducing trouble involved in climbing poles to install base stations and offering diversified services and products to help them map network construction routes for different scenarios.

When it comes to the challenge that 5G base stations are extremely power-hungry, the Shenzhen-based company also unveiled a solution called 5G Power. By integrating artificial intelligence into the service, Huawei aims to help telecom operators cut electricity bills and offer stable power supply in a fast and efficient manner.

"5G is set to integrate with a wide range of sectors and Huawei is dedicated to offering the best site and power products to help quicken large-scale 5G deployment," Qiu said.

## Swire sets up refined tea making facility in Guizhou

By **ZHU WENQIAN** in Beijing and **YANG JUN** in Guiyang

United Kingdom-based John Swire & Sons Ltd has set up its first refined tea processing plant in China in Sinan, a county in the mountainous Guizhou province, to cash in on the local advantages like a subtropical climate and clean air.

Finlays, a sub-affiliate of the London-based John Swire & Sons and a major beverage supplier, established the plant in Guizhou and it started operations in late October. Built with an investment of 120 million yuan (\$17 million), the plant mainly produces black tea, green tea and white tea. By 2023, it plans to achieve an annual capacity of 20,000 metric tons of tea.

Finlays said it hopes to build a sustainable and flexible purchase and supply model in Guizhou, and build an ecological tea production and marketing chain from tea trees to tea cups.

**“We are bullish on the growth prospects of ecological tea produced in Guizhou ...”**

**Li Jian**, public relations director of John Swire & Sons Ltd in China

"We are bullish on the growth prospects of ecological tea produced in Guizhou, so we have built a high-quality ecological tea garden and refined tea processing plant there," said Li Jian, public relations director of John Swire & Sons Ltd in China.

The tea produced in Guizhou, China's largest tea plantation area with a long tea planting history, will be transported to Chongqing, and then to Europe by railways, or it will be transported to the ports of East China, before being exported globally. Besides, tea planted there will also be sold to various cities domestically.

Currently, the tea is exported to the United States. Starting from next year, tea made in the plant will be exported to major markets of Finlays globally, including Germany, France, Morocco, Russia, and the US. The export volume is expected to reach 3,000 tons to 5,000 tons annually from the factory.

Currently, the factory has two production lines, and they each produce sliced tea and tea in sticks. The factory manufactures tea based on the requirement of Finlays.

After a few years of research, Finlays found Guizhou to be the best source for clean tea in China and subsequently set up a unit in Guizhou.

"Unlike the production and investment models in other countries, Finlays collects tea from its cooperative small-scale local farmers in Guizhou and then refines them at the factory. At other places, the tea comes from big management suppliers," Li said.

Finlays also provides tea plantation training, such as integrated pest management without applying pesticides, yield and cost management, and the use of smart mobile technologies for local farmers.

The tea produced locally will be packed with a quick response code, and consumers can scan the code to track the producers, natural environment of origin and the condition of the use of pesticides. The tea made in Guizhou can meet or exceed the standards of the European Union, Finlays said.

"The air quality in some areas of Guizhou can be 10 to 15 times cleaner than the clean air standard proposed by the World Health Organization," said Fu Chuanyao, president of the Guizhou Tea Culture Research Association.

Some other renowned retailers, such as Nongfu Spring and A.S. Watson Group, have also set up branches in Guizhou.

*Dong Xianwu in Guiyang contributed to the story.*

Contact the writers at [zhuwenqian@chinadaily.com.cn](mailto:zhuwenqian@chinadaily.com.cn)

## Chinese online retailers scramble to open more physical stores

By **FAN FEIFEI**  
fanfeifei@chinadaily.com.cn

Chinese online retailers are gearing up to open brick-and-mortar stores and offer immersive, interactive and intelligent shopping experiences for consumers, hoping to cash in on the growing demand arising from consumption upgrade and the rise of middle and high-income Chinese shoppers, said industry experts.

E-commerce giant JD opened its largest offline store named "JD e-space", spanning 50,000 square meters in Chongqing on Nov 11, as part of its boundaryless retail strategy that aims to promote online-to-offline retail experiences for customers.

The store features popular and bestselling offerings in product categories from electronics, home appliances, digital accessories to health, fitness and beauty products and office supplies.

JD claimed the e-space will be the country's only major store to offer ultrafast 5G network coverage. It has dynamic price tags to ensure store prices are aligned with online prices, and robots to guide customers and introduce products.

After experimenting with these products, consumers can scan a quick response code to buy and have items delivered to their homes by JD Logistics, the logistics arm of JD, usually within 24 hours or they can complete their purchase on-site and carry home in-stock products immediately.

More than 30,000 customers had visited the store as of 12 am on Nov 11, with sales revenue surpassing 10 million yuan (\$1.4 million) within



A customer tries out a phone at JD's largest offline store JD e-space in Chongqing. PROVIDED TO CHINA DAILY

an hour of the store opening, according to JD.

"JD's boundaryless retail strategy is to integrate online and offline retail, enabling customers to buy whatever they want, whenever they want, wherever they want," said Yang Zisheng, head of offline business at JD Home Appliances.

Yang said with the most advanced technologies and state-of-the-art products, the offline store provides consumers not only shopping convenience but also an immersive and interactive experience.

To further enhance the shopping experience, the store also has various themed experience areas, such

as Apple's largest authorized offline experience store, Microsoft's first smart home experience area in China, GE's first omnichannel home appliance store in China, and Ninebot's first authorized offline experience store in China.

Vipshop Holdings Ltd, China's major online discount retailer, has already opened about 300 brick-and-mortar stores across the nation.

In July, it purchased brick-and-mortar outlet operator Shanshan Group for 2.9 billion yuan, which represents another milestone in Vipshop's efforts to explore online and offline integration in its core business.

"Through this highly strategic transaction, we will gain presence in the offline outlet business in China, which further enhances our ecosystem and fortifies our leading position in China's discount retail segment," said Eric Shen, chairman and CEO of Vipshop.

Shanshan currently operates five outlets in Ningbo, Taiyuan, Harbin, Zhengzhou, and Nanchang, with another five outlets in the pipeline.

The company said net revenue for the third quarter of 2019 rose 10 percent year-on-year to 19.6 billion yuan, compared with 17.8 billion yuan for the same period a year ago. Its net profit stood at 1.2 billion

**50,000 sq m**

the area of JD's largest offline store JD e-space in Chongqing

yuan, an increase of 140.2 percent year-on-year from 500.8 million yuan in the same period a year earlier.

Chen Tao, an analyst with internet consultancy Analysys in Beijing, said the offline stores could play a complementary role in boosting sales of online retailers and help in cultivating purchase habits of consumers.

"By virtue of big data and artificial intelligence, the offline stores could better capture consumers' shopping habits and preferences, and make accurate recommendations," Chen noted.

Yitiao, a video-focused content producer and e-commerce startup, opened its first three brick-and-mortar stores in Shanghai last year. Xu Husheng, founder of Yitiao, said the company plans to open 100 offline channels in the next two years.

Mo Daiqing, an analyst at the China E-Commerce Research Center, said the offline stores will present a new opportunity for major online retailers to expand their retail channels.

"First of all, the targeted customer group should be determined, and the portfolio of products should be differentiated so as to bring about new shopping experiences. Second, online retailers must do well in supply chain management, balance the online and offline prices of products, as well as consider cost structure to gain profits," Mo said.