



First Yangtze River 5G network Coverage Test and Optimization

Overview

Dingli cooperated with China Mobile Jiangsu Branch, Purple Mountain Laboratories, and Rohde & Schwarz to perform the Yangtze River 5G network coverage verification and optimization- China first 5G deployment & verification across Yangtze River.

The testing mileage covers 10-kilometer distance ranging from Nanjing Victory Memorial Hall across the Yangtze River to Yanziji, which includes the Beijing-Hangzhou Grand Canal and Jiangyin Xiagang Estuary.

Challenges

China Mobile (Jiangsu) had been deployed 8 5G NSA sites along the Yangtze River Nanjing Waterway. Dingli was required to complete the full-process measurement, including Single Site Verification (SSV), RF and KPIs optimization, and network acceptance and more.

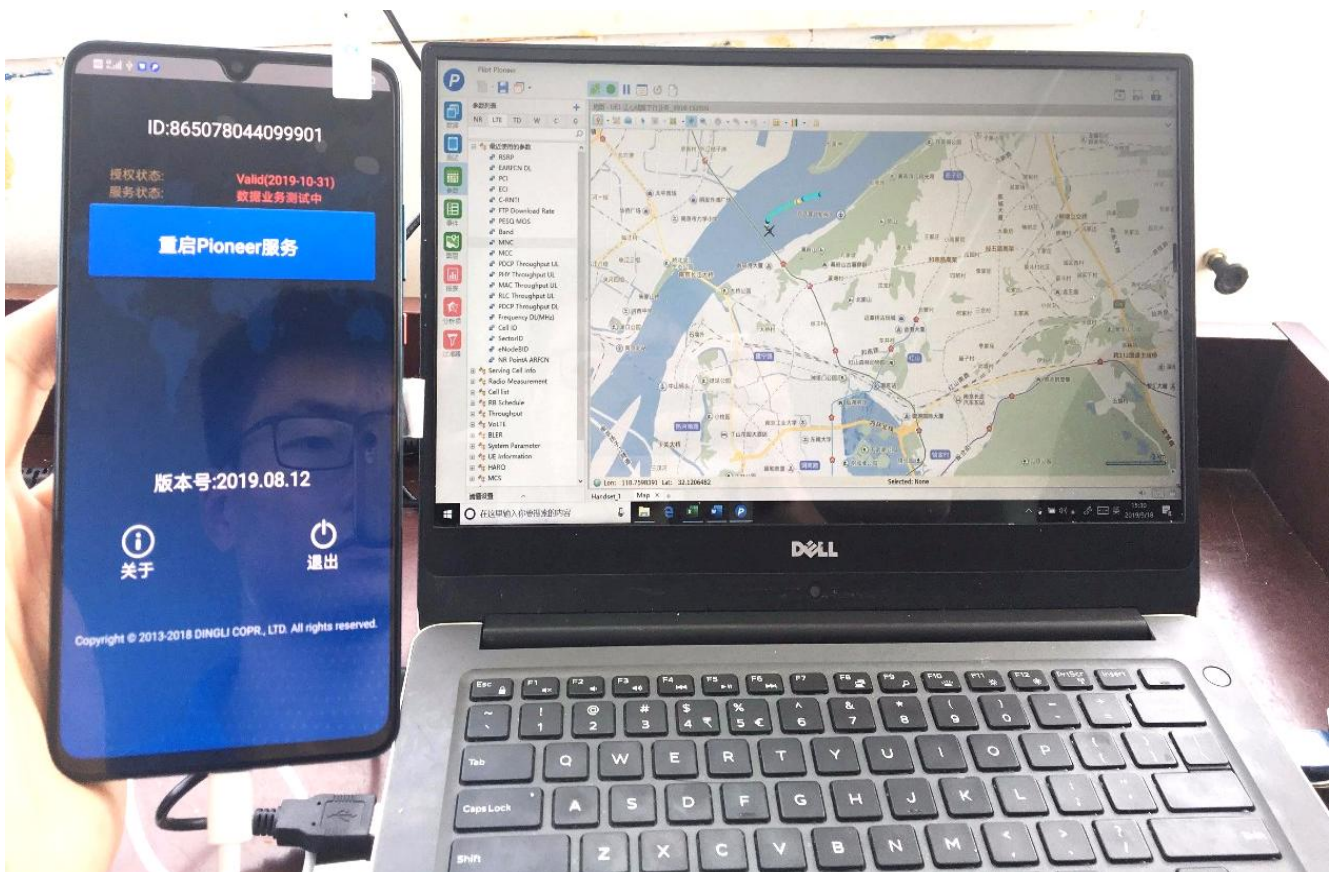
The wide Yangtze River, the strong winds and waves, may cause 5G network signal unstable. And the test vessel needs to maintain a relatively safe distance and speed with passing ships, makes it harder to keep the stable test rate.

Moreover, the signal reflection from the water surface may further extend the LTE coverage, causing the test devices failed to connect (or maintain) connection to the 5G base station.



Result

With the joint efforts of the project team - China Mobile Jiangsu Branch, Dingli, Huawei, Purple Mountain Laboratories, and Rohde & Schwarz, the 5G NR network optimized with maximum coverage over the Yangtze River range. Which enables stable and smooth 8K HD video transmission, 5G navigation, high-speed downloads, and video calls for the maritime institution and the passing ships.



Comments

“The 5G network coverage along the Yangtze River provides new energy for the shipping economic development and helps us improve and upgrade the information technology in our maritime sector”

----- Jiangsu Maritime Bureau

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