Fibocom

5G Healthcare — Smart Medical Consultation

A Fibocom IoT Connectivity Case Study

Healthcare

Customer

"With the gradual maturity of 5G, big data, and IoT technology, the demand for digital transformation in the healthcare industry is gradually increasing. Under the prevailing trend of medical digitalization, it is essential to realize the integration of multiple technologies, and improve the level of informatization and intelligence of the healthcare industry. In this context, Fibocom and Xicoo Medical jointly released China's first 5G+ smart medical consultation display solution, aiming to solve the low efficiency of communication and operation in traditional hospitals. By enabling remote consultation through smart medical work terminals and reliable high-speed 5G networks, medical collaboration scenarios such as internal video conferences and case discussions will become more efficient and convenient. It will also make a significant improvement to the experiences of doctors, nurses, as well as patients, and boost the digital transformation of the healthcare industry," stated Ye, the Director of Xicoo Medical Technology.

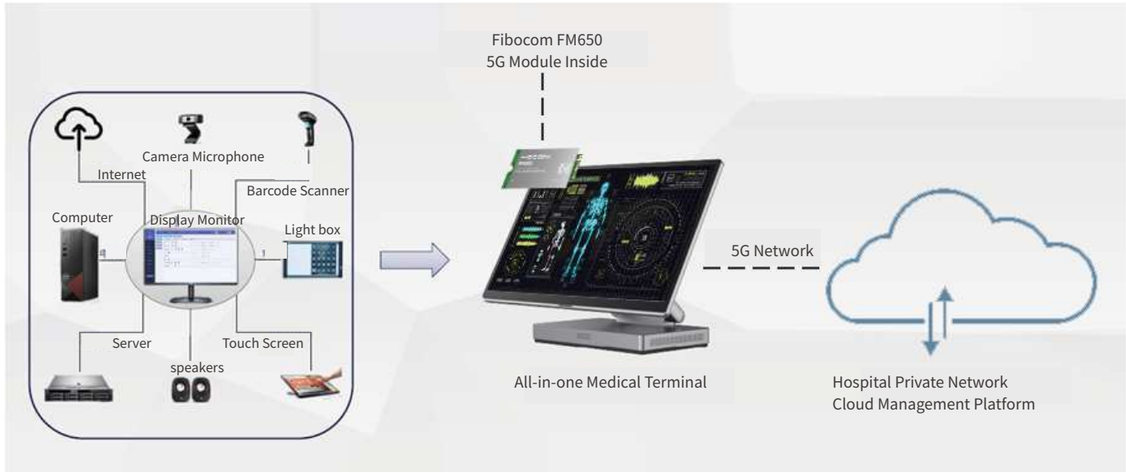
Industry Challenges

For patients, they often need to wait in the hospital for a long time for treatment, not to mention the trip it took to get the examinations done. In addition, when consulting with medical specialists in a distant place, the remote consultation equipment requires high-speed network support, while special personnel is needed to operate professional equipment, which cannot meet the urgent consultation needs.

For the staff of the nurse station, when shift, they need to clearly explain the latest condition and medication of each patient to their co-workers. The traditional method is to take notes on small cards, which are large in volume and time-consuming, with a risk of omission. For outpatient consultations, on-duty doctors need to switch between different devices to check different information, which are usually put on one desk, causing crowded work surfaces.

During in-hospital consultations and remote consultations, plenty of special equipment is required to display patient information as well as communicate. The amount of external equipment also require extra manpower to set up, resulting in poor flexibility and limited working space.

Solution



Xicoo ‘s 5G Smart Medical Consultation Display Solution is an integrated touch display terminal specially built for clinical healthcare scenarios under the DICOM Part14 standard. Integrated in the intelligent device, Fibocom’ s 5G module FM650 enables 5G high-speed wireless connectivity in modern healthcare scenarios.

The medical terminal adopts dual systems (Windows & Android), dual network cards, dual Wi-Fi, dual storage design to support high-definition audio and video, as well as screen content sharing functions. It can effectively improve the office efficiency of medical staff. Under the Android OS, functions such as data query, film reading on cloud and remote multi-party conferences can be realized through this one-stop solution. The two systems only share screens and the data is not interconnected, which can effectively protect the information, allowing medical staff to perform internal and external work with the same work terminal. The all-in-one display solution simplifies the work process, improve the efficiency of medical diagnosis, and accelerate the digital transformation of smart healthcare.

DICOM calibration: The medical work terminal is calibrated according to DICOM Part14 to provide higher-quality medical image displays and allow doctors to better see the patient's image information.

Film reading on cloud: The solution supports code scanning to download the patient's film records from the cloud, and automatically project the image information on the screen, so that the medical staff can remotely extract the patient's film record.

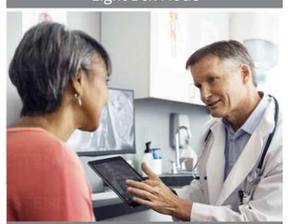
Remote communication: The medical work terminal supports multi-party HD video conferencing, screen sharing, and multiple interactive functions, effectively improving communication efficiency of morning meetings, on-duty shifts, remote consultations, and academic exchanges.

Film viewing light box: One-click conversion to film viewing light box mode to assist doctors in reading the film.

Remote Medical Conference

Light Box Mode

Clinic Treatment


Film Reading on Cloud Anywhere/Anytime

Fibocom Customer Service and Support

Product Design

customer product reference design

Hardware design recommendation

SCH/PCB examination

RF optimization solution

Thermal design guide

Testing & Certification

Module application scenario test

Customer overall product test

Industrial-grade certification

Operator certification

Market access certification

Customer Service

Software optimization

Software customization

Product long life cycle management

Post-Sales Services

7x24 response to customers

FOTA

Localized on-site technical support

5G has greatly promoted the digital transformation and intelligent upgrade of the smart medical industry. By enabling the collection, transmission, and analysis of big data, 5G communication technology simplifies and optimizes the workflow of medical workers. In the future, Fibocom will continue to provide stable and reliable 5G high-speed wireless networking services for Xicoo' s smart medical consultation display terminals to support smarter and more efficient healthcare services.