



Cloud Technologies Help Healthcare Focus on Patient Wellbeing from Anywhere

Quanta Computer

Size: 70,000 Employees

Location: Taiwan

Industry: Technology and manufacturing



Challenge:

- Provide quality, patient-centric healthcare for an aging population
- Help medical institutions make the most of limited resources
- Create customized solutions that meet a wide variety of patient and healthcare needs

Solution:

- Delivered cloud-based healthcare technology and services by partnering Quanta hardware with Cisco cloud computing
- Created a reliable, fast, and scalable cloud infrastructure based on Cisco® data center, network, and collaboration technologies

The global healthcare industry faces two major challenges: the lack of medical resources, resulting in a heavy burden on medical personnel, and a shift in the patient treatment model from hospital-centric care to patient-centric care built around the four Ps of care—preventive, personalized, predictive, and participatory. In response to this trend, healthcare is moving towards a continuous care model, which means consistent healthcare services connecting hospitals, homes, and health services organizations.

One focus of continuous healthcare is elderly patients, who may want to retain the independence of living at home but still need occasional care. This is especially true in China, which has a growing independent elderly population. According to the Blue Book of China's Economy published by the Chinese Academy of Social Sciences, elderly singles or couples accounted for about 22 percent of all households in China in 2000, rising to 31 percent in 2010. Among these, the number of elderly living alone has increased from 11 to 16 percent, creating a huge opportunity for smart and connected healthcare services and solutions.

Quanta Computer and Cisco saw an opportunity to help medical and health institutions address the issues caused by limited resources using virtualization technology, cloud environments, and big data analysis to provide personalized smart healthcare services through a user-friendly interface. Cisco and Quanta decided to collaborate on QOCA Smart Healthcare solutions to meet Chinese market needs, combining Quanta's computer and manufacturing experience with Cisco® cloud technologies for cloud-based services delivered through user-friendly terminal interfaces. Through Cisco channel partners, QOCA solutions help hospitals and health management organizations build application services that bring high value to healthcare.

QOCA Smart Healthcare solutions, QOCA SPT, and QOCA Home run on Cisco network, collaboration, and data center technology. The cloud service architecture and application features are flexible enough to adjust for different medical processes and care needs with room to expand with additional services. This allows QOCA Smart Healthcare solutions to meet the diverse demands from patients, their families, and healthcare

QOCA Smart Healthcare solutions use virtualization technology, cloud environments, and big data analysis to provide personalized smart healthcare services through a user-friendly interface.



Cisco and Quanta Computer join together to create cloud-based healthcare monitoring services

With digital technology, Quanta Computer:



Keeps medical information and personal communications private over a secure cloud infrastructure



Enhances patient experiences by providing entertainment and communication options that keep patients connected and positive



Reduced medical risk and lowered IT management costs while providing advanced medical care

professionals. The cloud-based service also improves operation speeds and reduces resource requirements, dramatically reducing the burden on IT departments.

QOCA SPT: patient-centric care at the bedside

The QOCA SPT smart bedside care system helps hospitals build patient-centric environments by combining a cloud platform with intelligent, bedside terminals, and applications that combine information, communication, entertainment, and medical processes. Cisco cloud infrastructure provides a healthy backbone for the services, securely sharing information between bedside and hospital systems while keeping patients connected with nurses and the outside world.

By integrating the QOCA SPT cloud platform with hospital information systems and workflows, QOCA SPT can enhance work efficiency, reduce medical risk, lower management costs, improve the quality of the work environment, and enhance the quality of medical services.

Doctors can read medical reports and X-rays directly at the bedside and explain results to patients. Patients can call nursing professionals as needed, but they can also use the terminal for personal entertainment services, such as watching films or television programs, listening to the radio, playing social network games, and making video calls. These options improve patients' moods during hospitalization, allowing hospitals to better support both physical and mental health.

Through the QOCA SPT intelligent care unit, nurses can communicate with patients through telephone or real-time video communications. During an emergency, the multicast function system can transmit texts or voice messages while simultaneously contacting relevant professionals.

QOCA home: monitoring patient health from within their homes

The QOCA home remote health care system uses mobile application service modules to connect patients with remote healthcare teams and family, making the system ideal for patients with chronic illnesses or healthcare issues who are living alone or in long-term care facilities.

The QOCA home terminal is designed with an interactive interface that is simple, easy to use, and highly intuitive. Users can easily carry out medical tests by themselves and upload data to the cloud, where it is analyzed to help medical professionals and family members keep up to date with any abnormal situation. In addition to measuring and recording blood pressure, medications, and outpatient data, with the home terminal users can watch informational health videos.

The home terminal even includes a multimedia message center and private communication, which helps transfer patients' home health information and interactions securely. Through remote video features built in to QOCA home, medical professionals and social workers can easily connect and talk with patients and their families by establishing two-way or multivideo conversations.



A cloud infrastructure to meet a wide variety of patient and healthcare needs

The flexible cloud platform runs on Cisco cloud solutions. The secure Cisco cloud infrastructure keeps medical information and communications private while scaling to supporting high-quality video solutions.

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