Achieve the Final 10m Medical Informationization Extension
Intel® Architecture-based Mobile Medical Solution

COMPANY
Shanghai Kingstar Winning Software Co., Ltd. (hereinafter referred to as Kingstar Winning) is specialized in the research, development, sales and technical services of application software in the medical and healthcare sector. Cooperating with the global healthcare leaders and clinical doctors, Kingstar Winning has been committed to providing comprehensive solutions for the all-around informationization management of the medical industry. The company has a high profile in the industry and maintained a leading market position.

CHALLENGES
With the continuous development of the medical information technology and mobile technology, the mobility of information systems has been an increasingly pressing need for hospitals. Against this background, Kingstar Winning launched a mobile doctor workstation at an acceptable cost to realize the “final 10m informationization extension” from the healthcare workstation to the ward in a rational way.

SOLUTIONS
Adopting the tablets that use Intel® Atom™ processor and Windows 8 operating system as the terminal equipments, Kingstar Winning’s mobile doctor workstation system has satisfied the hospitals’ requirements on mobile informationization in terms of response speed, system stability, compatibility, portability and user experience.

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Medical informationization is very essential to the national economic and social informationization. The diagnosis and treatment system that has been widely used in domestic hospitals is usually installed to a fixed computer and connected to the hospital’s information center via a wired network, which brings some obstacles to the digitalization of diagnosis and treatment information. The original medical mobile workstation solution was designed as follows: the medical staff pushes a cart to the ward with paper documents or manual documents, collects information and goes back to the office to enter the information collected into the computer. In this way, the medical staff has to spend a lot of time in paper work, which makes it rather difficult to achieve fine management of the clinical process. How to satisfy the convenience and efficiency requirement on clinical operations of various hospitals? How to strengthen the control of medical safety? How to realize the “final 10m extension” from the healthcare workstation to the ward in an effective and rational manner? Domestic medical informationization vendors are committed to resolving the above-mentioned problems. Kingstar Winning gives its own prescription - mobile doctor workstation.

**Mobile Doctor Workstation**

Kingstar Winning’s mobile doctor workstation system is a doctor workstation deployed on a mobile device. Based on the hospital’s original HIS system, the mobile doctor workstation system makes full use of the HIS data resources and extends HIS to the ward. Besides, the system can integrate with the hospital’s original information systems (such as the PACS, EMR, RIS and LIS), shifting the clinical work from the desktop to the bedside.

In order to ensure the consistency between the doctor workstation system on a desktop platform and that on a tablet, Kingstar Winning and Intel worked closely together to develop a mobile doctor workstation system which uses the Windows 8 tablet based on Intel® architecture as its terminal equipment. When making rounds, doctors can access a patient’s diagnosis and treatment information (such as the medical record, medical advice, inspection report and test report) in real time, add medical advices, write medical records and then synchronize it to the database through the system installed on a tablet, so as to make a better treatment plan for the patient.

The mobile doctor workstation solution outweighs other solutions in the following aspects:

- **Information integration**: Integrate seamlessly with the original information systems (including HIS, PACS, EMR, RIS and LIS) through the mobile medical information integration platform.

- **Real-time information acquisition**: Access the patient’s clinical information (such as medical record, medical advice, inspection report and test report) via the tablet and support the local data storage and offline operations.

- **Closer to clinical requirement**: Provide an information-exchange platform, such as important medical advices, critically ill notice and surgery reminder, to enable timely communications between doctors and nurses.

- **More natural touch experience**: Support Windows 8 smart operating system and provide friendlier user interface, smooth user experience and broader compatibility. The touch operations are very intuitive and smooth, which facilitates

**BENEFITS**

The implementation of Kingstar Winning’s mobile doctor workstation system has helped the hospitals greatly ease the working pressure of the medical staff, improve the bed turnover rate and strengthen the quality control.
medical staff to quickly master and apply the system to actual medical practices.

Intel® platform-based touch device fully supports the mobile medical construction
Kingstar Winning’s mobile doctor workstation system, as a medical solution closely related to the medical staff, has raised higher requirement for the performance, stability, standby time, security and user experience of the terminal equipment. Intel® Atom™ processor, as the processing core of the system, not only enables higher energy efficiency and longer endurance, but also provides more security and better support for Windows 8 operating system.

- System Structure Chart -

- Benefits and Value -

By leveraging the tablets based on Intel® Atom™ processor and Windows 8 operating system, Kingstar Winning’s Mobile Doctor Workstation system has provided suitable solutions for a series of problems in the construction of hospital clinical informationization. The test shows that the system has achieved the desired effects in terms of stability, compatibility, portability and user experience. In the clinical environment, the mobile doctor workstation system has greatly improved working efficiency, optimized processes, improved services and enhanced security.

- Improved efficiency in diagnosis and treatment: As tablets have greatly reduced the entry of diagnosis and treatment information, medical staff can acquire and process the patients’ medical information anytime anywhere, which not only eases the intensity and pressure of clinical work, but also comprehensively improves the working efficiency of the medical staff.

- Improved service quality: With the mobile information terminal, medical staff can acquire and process the patients’ diagnosis and treatment information in real time to ensure that patients can get proper diagnosis and treatment immediately. The application of the system also lengthens the time that medical staff accompanies the patients, which truly reflects the hospital’s “patient-oriented” management philosophy.

- Improved medical safety: The use of bar code and RFID...
technologies to mark and identify pharmaceutics, chemical and biological specimens, equipments, medical staff as well as patients, not only ensures rapid confirmation of the information mapping, but also effectively eradicates human judgment errors, thereby significantly reducing the rate of drug misuse and malpractice incidence.

- **Optimized business processes:** the mobile care information system can record the medical information, medical and charging process in each link of the hospital, which facilitates the hospital managers to master the hospital information in a timely and accurate manner and make decisions according to the actual situation. In this way, the hospital's evaluation system, management efficiency and management efforts will be greatly improved.

According to the data, the implementation of Kingstar Winning's mobile doctor workstation system has helped the hospital greatly ease the working pressure of the medical staff, improve the bed turnover rate and strengthen the quality control. Mobile healthcare is changing the way of medical presence.

For information about the Intel® Atom™ processor, please visit: