'MICROSOFT, INTEL & KAMSOFT SOLUTIONS / CASE STUDY'

The recipe for a modern medical facility

"The new IT system allows us to efficiently manage the hospital. Thanks to Windows 8.1 tablets, doctors and nurses have quick and direct access to patient information. This way, the medical staff can order specific tests, requests, medication and dosage next to a patient's bed."

Adam Szałanda
Director of Ludwik Rydygier Regional Hospital in Suwałki

The introduction of a complete system and Windows 8.1 tablets with Intel® processors has helped in the conversion of the Regional Hospital in Suwałki into a modern, competitive and well managed medical facility.

Business challenge

Ludwik Rydygier Regional Hospital in Suwałki is currently one of the most technologically advanced medical facilities in Poland. It is also the largest health facility in the north-eastern part of the country.

The hospital has twenty departments in which patients are hospitalized. The main branches include Clinical Oncology and Hematology Department, General Surgery Department, Orthopedics and Trauma Department, as well as Internal Medicine Departments.

Regional Hospital in Suwałki has seventeen specialist clinics. The largest clinics include: Oncology clinic, Urology clinic, Pediatric clinic and Otolaryngology clinic.

The facility can also perform a suite of tests such as: Gastrointestinal Endoscopic Examination - Gastroscopy and Gastrointestinal Endoscopic Examination - Colonoscopy or Computed Tomography Examination.

"When new management was appointed in 2011, the hospital was in a difficult situation and needed extensive restructuring. The planned changes applied to the whole functioning model of the hospital as well as its computerization. One of the initiatives was the introduction of a complete IT system that would integrate white and gray areas. We were looking for an effective solution that would facilitate decision-making related to medicine and management" - says Adam Szałanda, Director of the Ludwik Rydygier Regional Hospital in Suwałki.

The new managers needed tools that would help effectively manage the facility by allowing decisions to be made based on complete, consistent data provided in real-time. What is more, a reduction of operating costs was also planned through the implementation of drug and storage management.

"We planned to extend the previous system, but it did not allow a full integration of white and gray areas. However, the costs of system expansion exceeded the implementation of the new project. After performing a series of analysis, we decided to choose a completely new solution. First of all, it was to be a control and management tool. In addition, the new system had to prepare the hospital to fulfill the requirements of the law on electronic medical records" - says Adam Szałanda.

The implemented solution was to be the first step towards transforming the Regional Hospital in Suwałki into a modern, competitive and well managed medical facility.

Solution

Regional Hospital in Suwałki implemented a modern ERP system called KS-MEDIS. It is an integrated information technology system of the latest generation, created based on the latest solutions that takes into account the specific nature of Polish hospitals. The system supports the operation and management of hospitals of all specialties that have the highest requirements when it comes to computer systems.

"In order to implement our plans we needed help from a company that can guarantee a comprehensive service, that is: software, equipment, maintenance and the necessary knowledge. As part of the tender contract, Kamsoft provided us with computers, tablets, server hardware, database, and built a new Wi-Fi network" - says Adam Szałanda.

KS-MEDIS is a system whose great opportunities lie in the range of functions it provides. The system introduces new standards for hospital administration as well as costs analysis and optimization. This is done by modern financial and accounting subsystem (KS-CFC), payroll subsystem (KS-HRM), management of inventory and fixed assets support subsystem (KS-ESM), as well as drugs management subsystem (KS-ASW). Advanced techniques of processing and presentation of data allow solving complex problems and actively help in making strategic decisions in the field of hospital management (KS-PBC).

"For the system to be fully effective, it must constantly receive data. Therefore, the hospital was looking for a mechanism that would allow and encourage doctors to create electronic medical records. To this end we have provided 100 tablets with Windows 8.1 operating system and Intel processors on which we installed "Medical rounds" and "Nurse rounds". These

applications provide information about the patients right at their bedsides. Everything is very safe thanks to the Active Directory service provided by Windows Server, which enables the hospital to give authorization and manage user passwords in a centralized manner" - says Michał Zorzycki, Director of the Department of Healthcare Systems, Kamsoft.

Until a few years ago, the organization of work in a hospital was largely beyond any control. Without advanced drug and material management, the directors only had estimates at their disposal without any mechanism to verify them.

order drugs for a whole day with determined hours of administration. He also has access to all diagnostic tests. Additionally, the system has a graphical presentation of data, which facilitates the work. Identification of patients is performed based on bar codes placed on armlets. The doctor can scan the code using the tablet's camera and get access to all medical data about the patient" - says Alicja Skindzielewska, Chief Accountant, acting as the Director of Economy, Regional Hospital in Suwałki.

"Windows 8.1 is a modern operating system with a very attractive user interface."

-Marcin Klimowski

Windows Client Product Marketing Manager, Microsoft.

"During traditional rounds, the doctor orders diagnostic tests and drugs on pieces of paper which are then transferred to the appropriate units (laboratory, X-ray, pharmacy, etc.). Thanks to tablets, the order is visible in the system immediately for nurses and other units. This has an impact on the speed of execution of tasks. In addition, the doctor has access to treatment history, the current data on the state of the patient, the ordination of drugs, he can

Tablets with Intel processors and Windows 8.1 system enable instant and secure access to records anywhere in the medical facility. Using a touch screen with an intuitive interface, the user can access information in the form of data and high-resolution images, can make quick notes, record the event on the video and use video conferencing feature.

The devices integrated easily into the existing IT environment and are compatible with most of the peripheral devices (eg. printers) used in the hospital. Built-in hardware security functionality can help protect patient information while providing a wide range of capabilities for device management.

"Windows 8.1 is a modern operating system with a very attractive user interface, allowing effective work on touch devices as well as on classic computers and laptops using mouse and keyboard. User screen is organized in the form of dynamic tiles that act as links to applications, websites or medical data. Users can freely configure the system boot screen to suit their needs, while the content of the tiles is updated in real time. The use of tablets with Windows 8.1 allowed us to shorten the implementation time because we could use standard solutions for infrastructure management, such as Active Directory. In the future, it will be possible to easily extend the management model using Microsoft's Enterprise Mobility Suite. The use of Windows 8.1 Pro also allows the customer to implement centrally managed data encryption on all devices used by medical personnel. It is also easy to use a single device for many people, thanks to multiple user profiles, which increases the level of security and can reduce costs by reducing the amount of required devices" - says Marcin Klimowski, Windows Client Product Marketing Manager, Microsoft.

Benefits

Implementation of the new system by Regional Hospital in Suwałki helped reduce the costs and increase the efficiency of the institution. -Integrated environment improved internal communication and enabled automation of many processes.

"The new system has allowed for comprehensive computerization of the hospital. We can now collect data and efficiently manage it, which helps in better organization of work of the entire facility. In contrast, using tablets with Windows 8.1, we can provide higher quality patient care through faster access to relevant medical information and secure its collection, storage and processing" - says Alicja Skindzielewska.

The system enables the facility to replace paper patient medical records with electronic documentation. Such solution allows the hospital to optimize expenses and operate the facility in accordance with applicable law. According to the act of 28 April 2011 on information system in health care, all medical records created after July 31, 2014 by health care facilities will have to be electronic.

"The use of tablets with Windows 8.1 in the daily work of the hospital allows the implementation of the patient drug distribution model. This

way, we know which drugs have been assigned to which patient. This allows us to accurately calculate the costs associated with the treatment of a particular person and monitor all the drugs. In addition, the managers received a tool to verify the working time of doctors, which also translates into better management of the institution" - says Michał Zorzycki.

appropriate hardware architecture and software is in place. The use of Intel® architecture and the Windows system offers a number of benefits for both end users and the IT department, which can easily introduce such devices into the existing infrastructure. The use of business-class devices allows you to take advantage of a wide range of accessories dedicated to specific

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The new application is primarily a way to facilitate the work of doctors and nurses. The integrated system reduces the time it takes to perform activities by 30 percent. When prescribing drugs, the application suggests possible changes when there is a conflict between different medications. Tablets with Windows 8.1 are also a way to organize medical records and increase their readability. The system maintains full history of treatment and changes, which is difficult to attain when using paper documentation.

"Implementation of tablets with Intel processors and the Windows 8.1 system showed how versatile the use of tablet technology can be if

applications, such as specialized, reinforced housings, extended life replacement batteries, bar code scanners, NFC tag readers, and in environments that require higher security - fingerprint scanners and smart card readers. I am sure that the use of Intel® technology, Microsoft Windows system and Kamsoft applications provides the medical staff and patients with high value, accelerating some medical procedures and thereby affecting the improvement of the level of health care" - says Dariusz Balcerzak, Business Development Manager Intel Technology Poland.

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