Samsung Mobile EMR
Streamlines medical information and connects medical staff with patients

Highlights

- Increase productivity by providing a single place for medical staff to review and enter patient information, such as records, notes, vital signs and labs
- Improve time and resource management with views of detailed schedules and easy organization of outpatient visits and operations
- Improve the quality and efficiency of service by increasing communication and collaboration among members of the medical team
- Ensure patient satisfaction by showing accurate health status information using data and images

Improve the overall quality of medical care

Medical organizations are looking for new ways to streamline patient information and communication, and improve resource allocation to more efficiently provide treatment and manage daily schedules. Facilities around the world are adopting and using tablets to improve their medical service quality. Samsung Mobile EMR (Electronic Medical Records) is the ideal solution for medical organizations driven toward leading the health industry in mobile EMR.

Enhance medical services and improve access to patient information with Samsung Mobile EMR

Samsung Mobile EMR is an innovative medical information application that improves doctor and patient communications and medical services through the use of a GALAXY Tab. This solution affords medical facilities:

- **Versatile resource allocation.** Allocate human and physical resources more effectively by viewing and entering patient information and prescriptions. Check basic information, vital signs, prescription records, treatment results and nursing records anytime, anywhere.

- **Improved time management.** View and update schedules in real time. Review outpatient or surgery schedules listed in the hospital’s database directly in the GALAXY Tab application.

- **Effective communication.** Facilitate communication between patients and medical staff through one interface. Check joint treatment requests instantly to become more efficient. Provide more visual and accurate information to patients regarding their current status.

- **Eco-friendly environments.** Eliminate the need to print papers, charts, films and other materials by using a tablet with Samsung Mobile EMR.
Industry trends in healthcare
The area of mobile healthcare is growing rapidly. Medical organizations are looking for ways to implement green environments and improve service to their patients. Samsung Mobile EMR is the solution for these growing trends.

Paperless, green environment
A trend in healthcare has been toward becoming chartless, filmless, slipless and paperless. An increasing number of medical organizations are moving toward becoming paperless, green hospitals by implementing advanced IT technologies. Samsung Mobile EMR eliminates the need to print paper and film so that hospitals can maximize space and enhance the overall medical environment.

Remote care through mobile technology
With the exponential growth of mobile technology, the healthcare industry is also focusing on using mobile technology to provide medical care, anytime and anywhere. The recent reform of medical laws allows hospitals to provide medical services such as remote consultations overseas and locally. Hospitals use videoconferencing systems to provide consultations to remote patients. With the development of high-definition videoconference technologies and presentation solutions, doctors can provide remote healthcare using tablet PCs.

Increased patient-focused services
The healthcare industry has historically been doctor-focused; but recent industry trends show that medical organizations are now becoming more patient-focused. To improve the patient’s hospital experience, medical facilities are expanding their patient services. Cable companies are developing patient-specific channel services using tablets in hospital rooms. Medical facilities are also planning to provide services to enable patients to view and store their own medical information.

“Samsung Mobile EMR, a cutting-edge system that uses next generation IT technology, will contribute greatly to patients toward improvements in medical service.”
- Director Won-Gon Han, Kangbuk Samsung Hospital
Samsung Mobile EMR provides instant access to medical information.

Review and enter patient information anytime, anywhere for increased productivity

Samsung Mobile EMR enables medical organizations to provide high-quality, patient-focused medical services and increase productivity. With Mobile EMR, medical teams can review and enter patient information in real time using the Patients tab. Voice recording, memo and camera features are also available for capturing instant patient-specific information to add to records.

View information for three categories of patients by displaying a complete list or searching for a specific patient.

Functions of the Patients tab

The following table lists the various functions within the Patients tab.

<table>
<thead>
<tr>
<th>Subtab</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Records</td>
<td>View general information and patient history.</td>
</tr>
<tr>
<td>Notes</td>
<td>View notes and pictures taken by doctors with the GALAXY Tab for specific patients. Update notes by drawing, typing, recording voice memos or taking photos.</td>
</tr>
<tr>
<td>Vital Signs (V/S)</td>
<td>Check a patient’s vital signs moment by moment to judge a patient’s status. This function provides a graphical view or a table view and can be displayed in full screen.</td>
</tr>
<tr>
<td>Order</td>
<td>View and check previous medication records.</td>
</tr>
<tr>
<td>Lab</td>
<td>Access a graphical view for lab results to assess a patient’s status and assist in setting a care plan. Also view lab results chronologically to compare past and present results.</td>
</tr>
<tr>
<td>Nursing</td>
<td>View, add or edit nursing records for a specific date.</td>
</tr>
<tr>
<td>Consult</td>
<td>View a list to check a previously requested consult or request a new one.</td>
</tr>
</tbody>
</table>

“Until now we had to carry laptops to the patients’ room when they wanted to see information that could only be seen with a PC located in the doctor’s office. The GALAXY Tab is convenient to carry around and...view information while on the move.”

- Medical personnel, Samsung Medical Center
Check schedules and communicate with patients and medical teams in real time.

View patient schedules to improve time and resource management

The Schedule tab is a detailed view of schedules for a specific date. Schedules are linked to the main EMR server, so they are always up to date, enabling hospital organizations to better allocate resources, improving time and resource management. Medical staff can easily organize these schedules for outpatient visits and operations all in one location.

Communicate with medical teams in real time to improve the quality and efficiency of services

The Inbox tab facilitates real-time communication through three functions: Message, Consult and Personal Notes. Users can store documents, send and receive messages, and even collaborate with other members of the medical team instantly and all in one place. The Inbox tab improves quality and efficiency for medical organizations by increasing this communication and collaboration.

Reference supporting information to treat patients and ensure patient satisfaction

The Support tab provides users with a database of supporting information, such as manuals, reference sites, and drug and staff information, to improve efficiency when treating patients. Several functions within the Support tab help medical staff work quickly find important information, such as employee details, notices, assistance with medical references, website links and drug information. Hospitals and medical organizations can further consolidate communications with staff by providing medical guidelines and internal notice information within this tab.
Benefits of Samsung Mobile EMR for every user group

Hospital administration, the medical team and patients all have specific needs and goals. Hospital administration wants to develop a state-of-the-art image, become more patient-oriented, increase efficiency and decrease medical risk. The medical team needs the ability to more efficiently review patient information, easily explain treatment and options to the patient and reference medical books and information quickly. Lastly, patients need the ability to visually review their condition and understand their status immediately.

Samsung Mobile EMR provides several mobile solutions and benefits for hospital administration, the medical team and patients.

Hospital administration

Samsung Mobile EMR provides the following benefits to hospital administration:


- Enhanced hospital environment and improved organization. Samsung Mobile EMR improves and simplifies the hospital environment and saves space with portable personal IT devices. Hospital administration can quickly update patient status without having to replace a clipboard and rewrite information. Administrators can implement advanced medical systems by automatically storing medical records and retrieving them on personal devices in real time, which helps hospitals achieve The Journal of Clinical Investigation (JCI) authentication and promote brand awareness.

- Efficient resource reallocation. With Samsung Mobile EMR, hospital administrators can better allocate human and physical resources, improving the work efficiency of the medical staff. Hospital personnel can then focus on providing high-level medical services to patients, possibly shortening patients’ hospital stay.
Improve communication between patients and medical staff through one interface.

Medical teams
Samsung Mobile EMR provides the following benefits to medical teams:

- **Reduced working hours and more opportunities for self-development.** Samsung Mobile EMR enables medical staff to simplify and automate rounds preparation and other daily tasks. This automation of tasks allows medical staff time for self-development, such as research and academic activities, including writing theses, training and so on.

- **Instant access to medical and academic resources.** Medical teams can create and access academic information and resources from anywhere with Samsung Mobile EMR. The mobile IT environment reduces the gap between job and academic activities.

Patients
Samsung Mobile EMR provides patients an enhanced hospital experience. Samsung Mobile EMR improves the quality of medical service for patients by providing them with a more visual and accurate look at their status. Patient and staff communication improves through the use of pictures, graphics, charts, detailed medical information and video conferencing in the absence of the attending physicians.

Samsung Mobile EMR reference
Samsung Medical Center, the largest hospital in Korea, won the mobile innovative prize in the 2011 Government Awards for its implementation of mobile technology to improve its services. Samsung Mobile EMR, installed in the Seoul and Kangbuk branches, provided an increase in work efficiency and patient satisfaction.

<table>
<thead>
<tr>
<th>Samsung Medical Center</th>
<th>Kangbuk Samsung Hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location: Seoul, Korea</td>
<td>Location: Seoul, Korea</td>
</tr>
<tr>
<td>Beds: 1960</td>
<td>Beds: 700</td>
</tr>
<tr>
<td>Physicians: 1200</td>
<td>Physicians: 340</td>
</tr>
<tr>
<td>Launch Date: January 2011</td>
<td>Launch Date: October 2011</td>
</tr>
<tr>
<td>Device: GALAXY Tab 7</td>
<td>Device: GALAXY Tab 10.1</td>
</tr>
</tbody>
</table>
Quickly install and implement the Samsung Mobile EMR architecture.

**Samsung Mobile EMR architecture**

IT personnel can quickly install and implement Samsung Mobile EMR architecture. Installation and implementation usually occur in one month; however, the time for implementation may vary depending on the facility infrastructure. The architecture uses a Legacy EMR server through the Samsung Mobile EMR gateway or a Picture Archiving Communication System (PACS) server to feed information to the mobile client application. Samsung Mobile EMR also supports integration with Health Level 7 (HL7)-based systems. IT personnel also set queries for the Samsung Mobile EMR gateway.

![Figure 5. Samsung Mobile EMR architecture](image)

**Specifications**

The following tables list the general and deployment requirements for Samsung Mobile EMR.

### General requirements

<table>
<thead>
<tr>
<th>Detail</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry</td>
<td>Healthcare</td>
</tr>
<tr>
<td>Available date</td>
<td>February 2012</td>
</tr>
<tr>
<td>Available countries</td>
<td>All countries</td>
</tr>
<tr>
<td>Supported languages</td>
<td>Korean and English</td>
</tr>
<tr>
<td>Supported devices</td>
<td>GALAXY Tab 10.1, GALAXY Tab 8.9, GALAXY Tab 7.7</td>
</tr>
<tr>
<td>Supported client OS</td>
<td>Android 3.X</td>
</tr>
<tr>
<td>Server requirement</td>
<td>Microsoft® Windows® 2008 or above</td>
</tr>
</tbody>
</table>

### Deployment requirements

The following requirements are hardware specifications for a single server deployment. Hardware specifications can vary, depending on the deployment scenario and number of users. With recommended requirements, a hospital with 50 doctors can be covered.

<table>
<thead>
<tr>
<th>Detail</th>
<th>Minimum system requirements</th>
<th>Recommended system requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processor speed</td>
<td>1 GHz or faster</td>
<td>2.33 GHz quad-core CPUs</td>
</tr>
<tr>
<td>Memory</td>
<td>2 GB RAM</td>
<td>8 GB or more RAM</td>
</tr>
<tr>
<td>Operating system</td>
<td>32-bit Windows 2007 or Windows 2008</td>
<td></td>
</tr>
</tbody>
</table>

**Conclusion**

Samsung Mobile EMR is the technology that takes real-time medical information to the next level. It transforms any medical facility by streamlining patient information, schedules, communication and reference information. This transformation results in a much improved work environment and an excellent overall patient experience.
About Samsung Electronics Co., Ltd.

Samsung Electronics Co., Ltd. is a global leader in semiconductor, telecommunication, digital media and digital convergence technologies with 2011 consolidated sales of US$143.1 billion. Employing approximately 222,000 people in 205 offices across 71 countries, the company operates two separate organizations to coordinate its nine independent business units: Digital Media & Communications, comprising Visual Display, Mobile Communications, Telecommunication Systems, Digital Appliances, IT Solutions, and Digital Imaging; and Device Solutions, consisting of Memory, System LSI and LCD. Recognized for its industry-leading performance across a range of economic, environmental and social criteria, Samsung Electronics was named the world’s most sustainable technology company in the 2011 Dow Jones Sustainability Index. For more information, please visit www.samsung.com.

For more information

For more information about Samsung Mobile EMR, visit Samsung Enterprise Mobility at www.samsung.com/enterprise, or email Samsung Enterprise Mobility at enterprise@samsung.com.

Samsung Enterprise Mobility provides enterprise customers and IT managers with a suite of solutions developed in collaboration with industry-leading partners for business flexibility and productivity.