



Country: Singapore IT Opportunities in Healthcare Sector

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December 08

Summary

Despite the current economic downturn, the Singapore information technology market for the healthcare sector is expected to enjoy steady growth over the next few years. With healthy reserves, the Singapore government is expected to aggressively increase public spending to stimulate the economy. There are excellent opportunities for U.S. vendors and service providers to participate and sell their solutions to the existing healthcare providers as well as to four new hospitals that are scheduled to be built. Singapore is heavily dependent on imports for state-of-the-art IT technology for the healthcare sector. It also serves as a major distribution center for companies interested in selling to the region. Areas of best prospects include solutions for a National Electronic Healthcare Record system, National E-Health Portal, and the supply of Healthcare IT personnel and expertise.

Market Demand

Despite the current economic downturn, the information technology (IT) market for the healthcare sector in Singapore is expected to enjoy steady growth. The Singapore government is in a strong financial position to use fiscal policy to stimulate the economy including accelerating investments in IT spending in the healthcare sector to improve the quality and cost effectiveness of delivering healthcare services in the country. There are more than 20 hospitals and specialty centers providing a spectrum of healthcare services to its residents as well as foreigners seeking medical treatment in the country. Although healthcare service is cheaper here than in other developed countries, quality is comparable to those in developed nations. Singapore aspires to be Asia's healthcare center offering world class healthcare services and U.S. companies with cutting-edge healthcare technology would find good opportunities here.

In June 2006, the Singapore government announced iN2015 (<http://www.in2015.sg/>), a 10-year IT Master Plan. In the area of healthcare, the vision was to connect the country's healthcare facilities. A major goal was to have a nation-wide National Electronic Health Record system where all information will be integrated and seamless. In early 2007, the government announced plans to consolidate patient medical records in a common IT system to enable the information to be shared, securely, between doctors from both the public and private sectors in the country. The government has implemented the Electronic Medical Record Exchange (EMRX) in the public sector and extended the system to include community hospitals. The Ministry of Health reported that there will be continuous improvement to the EMRX system as resources are being committed to look at adding new functionalities and capabilities to the system through leveraging new and emerging technology. The government also worked with general practitioners in the country to e-enable their work via an integrated clinic management system (CMS). The initiative was announced in 2006 and it is a four-year plan for GPs to access and update patient record and billing and other related functions. The government is targeting to implement the CMS in 1,000 clinics by the end of 2011.

In October 2007, the Infocomm Development Authority (IDA), Ministry of Health and The Enterprise Challenge (TEC) issued a Healthcare Call-For-Collaboration (CFC), inviting healthcare institutions and infocomm partners to form consortia to architect, develop and trial innovative solutions to improve efficiency in the healthcare system and provide better clinical care quality. Twenty seven proposals were submitted by various vendors and seven consortia were selected to trial their respective infocomm solutions. The Singapore government will contribute S\$3 million (about US\$2 million) to support the seven projects over two years. Besides a wireless transmission system that can send electrocardiograms from the ambulance to emergency ward, other projects include a real-time operating theatre dashboard that can collect and display patient's surgical data from disparate sources, and an interactive Web-portal that helps children who suffer from behavioral and emotional disorders. Developing those

and other solutions are consortia led by the National University Hospital (NUH), Singapore General Hospital (SGH), Institute of Mental Health (IMH), O'Connor's, National Healthcare Group (NHG), National Heart Centre (NHC) and Singapore Health Services (SHS). The projects are expected to be completed by 2010.

S/No	Project Title	Consortium
1	Intelligent OT Dashboard System	NUH, Friartuck, Fujitsu
2	Improving Door-to-Balloon Times in Patients	SGH, NHC, SCDF
3	Integrated Children Mental Wellness System	IMH, Fujitsu, AskNLearn
4	ORLocate	O'Connor's, KKH
5	Care-QuEST	NHG, HMS
6	Quality through Unique Electronic Structured Template (QUEST)	NHC, Eclipsys
7	Healthcare X-change Portal	Singhealth, ECnet

Source: <http://www.ida.gov.sg/Programmes/20060419114315.aspx?getPagetype=34>

More information can be found at http://www.ida.gov.sg/doc/News%20and%20Events/News_and_Events_Level2/20080617152602/FSHealthcareFCAward.pdf

Market Data

Singapore aspires to have a nation-wide National Electronic Health Record system where all information will be integrated from hospitals to clinics to non-profit organizations. The healthcare sector is expected to spend over US\$300 million in IT investments to achieve the goal. Public hospitals and clinics will account for a larger share of IT investments in the country as the two major public healthcare groups are expected to invest aggressively in IT infrastructure and applications for their existing establishments. In addition, three new public hospitals and one private hospital will be built. The new hospitals provide excellent opportunities for U.S. vendors and solution providers to participate in the new projects as the U.S. is acknowledged to be the supplier of sophisticated IT technologies in the sector. The Singapore Government is expected to invest more than US\$600 million to build the new Khoo Teck Puat Hospital and to upgrade and expand facilities at the National Heart Centre, National University Hospital and Singapore General Hospital. The Government will start building the Jurong General Hospital in 2010 (that will be completed by 2015) and has also announced it plans to build another public hospital in the eastern part of the country. The major private healthcare group Parkway Health is also reported to be committed to investing more than US\$200 million to build a new 350-bed hospital called Novena Hospital scheduled for completion in 2011.

Best Prospects

U.S. companies that supply innovative and state-of-the-art IT solutions for the healthcare industry will find an excellent market in Singapore as hospitals and clinics here strive to exploit IT to provide world class healthcare services. Solutions sought include those that deliver safer care, enhance quality of care and achieve greater efficiency in healthcare operations by facilitating re-engineering of workflows and simplification and standardization of processes.

Major projects over the next few years include the National Electronic Health Record System and National E-Health Portal. In addition, there is opportunity for U.S. service providers to supply IT personnel experienced in the

healthcare sector to support the implementation of projects in Singapore as there is a shortage of such talent in the country.

Key Suppliers

Major foreign vendors from the U.S. Canada, Europe, and New Zealand are key suppliers to Singapore's health IT market. Many of these foreign companies have either set up operations in the country or are working with Singapore partners to service not only the Singapore market but also the region. They include multinational IT vendors such as Sun, HP, IBM, Oracle, Microsoft, SAP, etc. as well as niche vendors focused on providing healthcare solutions such as Epic Systems, Orion, and Eclipsys. There are also local independent vendors and system integrators that provide solutions to the healthcare sector.

Prospective Buyers

Major buyers include MOH Holdings under the Ministry of Health and several large private groups. MOH Holdings (MOHH) is the holding company of Singapore's public healthcare services establishments, including the [National Healthcare Group](#) (NHG) and [Singapore Health Services](#) (SingHealth). Together, NHG and SingHealth provide a complete spectrum of healthcare services from primary healthcare to secondary and tertiary care, and run seven [Joint Commission International \(JCI\)](#) accredited hospitals and six specialty centers. With a staff strength of 23,000, both NHG and SingHealth provide 80% of Singapore's acute tertiary care. Other public end-users of Healthcare IT include the Singapore Armed Forces and Civil Defence Force. The major private sector buyers include Parkway Healthcare, the Raffles Medical Group, and Mount Alvernia Hospital.

Public Sector

National Healthcare Group www.nhg.com.sg

Alexandra Hospital
National University Hospital
Tan Tock Seng Hospital
Woodbridge Hospital / Institute of Mental Health
The National Skin Centre
NHG Polyclinics
The Cancer Institute
The Eye Institute
The Heart Institute

Singapore Health Services (SingHealth) www.singhealth.com.sg

Singapore General Hospital
Changi General Hospital
KK Women's And Children's Hospital
Polyclinics
National Cancer Centre
National Dental Centre
National Heart Centre
National Neuroscience Centre
Singapore National Eye Centre

Private Hospitals

Parkway Group of Hospitals www.pgh.com.sg

Mount Elizabeth Hospital

Gleneagles Hospital

East Shore Hospital

New Hospital in Novena scheduled for 2011 completion

Raffles Medical Group www.rafflesmedical.com

Raffles Hospital

Raffles Medical Centre

Mount Alvernia Hospital <http://mtalvernia-hospital.org>

Thomson Medical Centre www.thomsonmedical.com

Johns Hopkins Singapore International Medical Centre www.imc.jhmi.edu

Purchases for large government procurement are typically made via tender and tender information is available through "GeBiz" (www.gebiz.gov.sg), the Singapore Government's e-procurement portal. All public sector invitations for quotations and tenders are posted on GeBIZ and suppliers can search for procurement opportunities, download tender documents, and submit their bids online. The public sector purchasing/planning cycle generally follows the Singapore Government's financial year, from April 1 – March 31 but there are also off-cycle purchases.

Market Entry

Establishing a local presence is the best way to enter the health IT market in Singapore. Many U.S. vendors have established their own subsidiaries in Singapore as it is crucial to be close to the customers. Vendors would have an edge if they are able to bring in foreign staff to share expertise than just depending solely on local staff to service the end users. It is also important for the U.S. vendors to collaborate with local distributors and system integrators who are well versed with local conditions and provide immediate marketing reach due to their existing networks. Many foreign companies establish representative offices or set up operations in Singapore not only to serve the Singaporean market but also use it as the gateway to Southeast Asia.

There is no special legislation in Singapore covering agency agreements. Mercantile laws in Singapore are based on English laws. The contract sets the terms of agreement between vendors and buyers. The parties involved draw up a satisfactory contract that determines the conduct of both parties during the contract period including the terms of cancellation. U.S. firms interested to enter the Singapore and other Asian markets should participate in major shows in the U.S. such as HIMSS 2009 which will be held in April 2009 in Chicago or HIMSS Asia which will be held in Kuala Lumpur, Malaysia in February 2009. This is because many public and private healthcare specialists will attend these shows to source for the latest technology and vendors that can help them in their projects.

Market Issues & Obstacles

Singapore is generally a free port and an open economy and maintains one of the most liberal trading regimes in the world. There is no duty on the import of IT products and solutions into Singapore. In June 2008, Health Level Seven (HL7), a non-profit standards organization for the healthcare sector opened its Singapore chapter. Accredited by the American National Standards Institute, HL7 has over 2,300 members from around 500 organizations, which includes 90 percent of the information systems vendors serving healthcare. The Singapore affiliate hopes to actively engage local healthcare users, providers and product suppliers in adopting a common set of standards for healthcare systems that will bring about a seamless exchange of information, such as administrative and clinical data, which goes a long way in enhancing patient care delivery across the care continuum." Besides matching Singapore's national requirements with HL7 standards, the local chapter will also develop Singapore-specific messages, profiles and implementation guides where necessary.

The U.S. Singapore Free Trade Agreement (USSFTA) went into force on January 1, 2004. This agreement, the United States' first FTA with an Asian nation, makes Singapore one of the strongest Intellectual Property Rights (IPR) regimes outside of the United States thus giving strong IPR protection to American firms doing business in Singapore. The USSFTA includes state-of-the-art protection for trademarks, including government involvement in resolving dispute between trademarks and Internet domain names; extended terms for copyright protection; strong anti-circumvention provision to prohibit tampering with technologies that are designed to prevent piracy; criminal penalties for companies that use unlicensed software; and protection for encrypted program-carrying satellite signals. The USSFTA also includes special provisions dealing with electronic commerce, competition policy and state enterprises, and customs cooperation. In addition, the agreement contains provisions for transparency and dispute settlement. Information on the USSFTA can be found at

http://www.ustr.gov/Trade_Agreements/Bilateral/Singapore_FTA/Final_Texts/Section_Index.htmsert text here.]

Trade Events

HIMSS 2009, February 24-27, 2009, Kuala Lumpur, Malaysia
<http://www.himssasiapac.org/general/SupportingOrgs.aspx>

HIMSS 2009, April 4-8, 2009, Chicago, United States
<http://www.himssconference.org/?src=hpglb&cof=u>

Hospimedica Asia 2010, September, 2010, Singapore, www.hospimedica-asia.com

Resources & Contacts

Infocomm Development Authority of Singapore www.ida.gov.sg
Singapore Infocomm Technology Federation <http://www.sitf.org.sg/marketplace/bizopp.aspx>
Ministry of Health <http://www.moh.gov.sg>
MOH Holdings Pte Ltd <http://mohh.com.sg>
National Healthcare Group www.nhg.com.sg
Singapore Health Services (SingHealth) www.singhealth.com.sg
Market research portal <http://www.export.gov/mrktresearch/index.asp>

For More Information

The U.S. Commercial Service in Singapore can be contacted via e-mail at: sweehoon.chia@mail.doc.gov; Phone: 65 6476-9037; Fax: 65 6476-9080; or visit our website: www.buyusa.gov/singapore

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Comments and Suggestions: We welcome your comments and suggestions regarding this market research. You can e-mail us your comments/suggestions to: Customer.Care@mail.doc.gov. Please include the name of the applicable market research in your e-mail. We greatly appreciate your feedback.

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