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Classification of Mobile/Wireless Services and Technology in Healthcare

MOBILE/WIRELESS INFRASTRUCTURE PROVIDERS MARKET

Types of Infrastructure

TELEMETRY

Telemetry is the name given to a wireless technology that is currently used in hospitals to monitor patients through the passing of signals via radio waves. Standards for this are outlined in documents relating to the wireless medical telemetry service (WMTS), which was set up by the Federal Communications Commission (FCC) in the United States. Radio frequencies have been assigned for the sole use of this service and there are also guidelines for its use. One of the aims of these guidelines is to limit the likelihood of other radio activities interfering with telemetry signals. This is essential as the equipment used to monitor patients may be operating in situations where failure of the equipment would risk harming the patient.

BLUETOOTH

Bluetooth is the name given to a wireless technology developed by Ericsson in partnership with other companies. Bluetooth is more of a device to device technology, for example, PC to printer, but can also be used as a device to network technology. The technology is considered as a wireless personal area network (WPAN). It is better suited to smaller devices as it has lower power consumption, is smaller in footprint, lower priced, and is intended to replace cables and short distance adhoc connectivity. Therefore, it is better for handsets and hand-held devices. Similar to wireless LAN (WLAN) technology, many devices like PCs, notebooks, and PDA are currently being shipped with bluetooth technology built in; thus, there is no need to purchase an additional card to make the device "wireless enabled".

WIRELESS LANs

There are a number of wireless technologies available at present that have applications in the healthcare market but there is little argument that the one that has the greatest potential is the WLAN technology, which is underpinned by standards developed by the IEEE in the United States. Over the past couple of years, the industry has agreed and supported a single WLAN standard, 802.11 b. The great benefit of this is that it is accepted globally. The wireless networks that are based on 802.11 Wi-Fi standards provide flexibility of data access and provide a secure infrastructure than the wired Ethernet solutions. Voice over Wi-Fi or VoFis is a single network to support wireless voice. The other services provided are location tracking, clinical data application and video surveillance, and so on.

Revenue Contribution

Figure 2-1 and Chart 2.1 shows the revenue forecasts by mobile/wireless infrastructure providers market from 2006 to 2015.

FIGURE 2 - 1

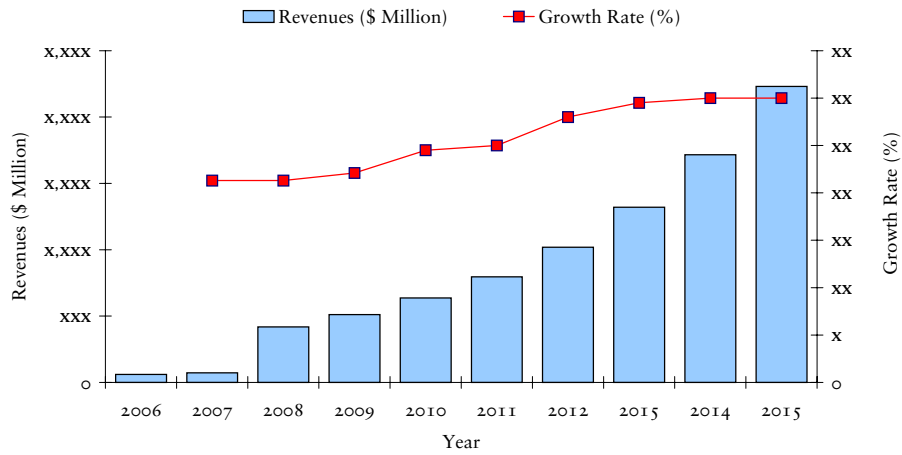
Mobile/Wireless Infrastructure Providers Market: Revenue Forecasts (Europe), 2006-2015

Year	Revenues (\$ Million)	Revenue Growth Rate (%)
2006		
2007		
2008	419.1	21.3
2009		
2010		
2011		
2012		
2013		
2014		
2015		
Compound Annual Growth Rate (2007-2015): xx.x%		

Note: All figures are rounded; the base year is 2007. Source: Frost & Sullivan

CHART 2.1

Mobile/Wireless Infrastructure Providers Market: Revenue Forecasts (Europe), 2006-2015



Note: All figures are rounded; the base year is 2007. Source: Frost & Sullivan

MOBILE/WIRELESS SOFTWARE APPLICATIONS MARKET

Types of Software Applications

The next key component that can act as a catalyst to the development of wireless technology in hospitals is software in a variety of forms that can provide doctors and nurses with access to applications that assist them in their work at the point of care. In the last five years in particular, there have been considerable developments in client devices and millions of these have been sold around the world. There are a number of different types of software used in the hospital arena that can be used in a wireless fashion. This includes the following:

PALM OS

A palm OS is an embedded operating system that is designed for ease of use with a touch-screen-based graphical user interface. The palm operating system has been quite successful over the last five years or so and has been especially popular in the healthcare environment. The palm OS was originally designed as an "organiser" with applications like calendar, address book, and meeting scheduler. The devices themselves are small enough to fit in the user's pocket. It has lower memory requirements than the pocket PC and the fact that it has been around for many years has meant that the number of developers of applications for the palm has grown considerably.

POCKET PC OS

Microsoft's first attempt at developing an operating system for handheld devices was called Windows CE. It has the advantage of the Windows user interface that is familiar to so many people around the world. However, because it is a cut-down version of Windows, it also has greater storage requirements. Screen resolution on the pocket PC version has improved considerably over the older Windows CE. Overall, it is not considered as easy to use as the palm device. Within the healthcare environment, it is fair to say that the palm is ahead on points. As the palm devices are sold in consumer outlets, they have proven very popular with doctors who have purchased them in large numbers. In addition, some very popular health-care applications have been designed for palm devices, for example, the patient keeper application, which has done very well in the United States. The fact that so many physicians already have these devices in their possession may help them to be accepted for use with wireless applications.

Revenue Contribution

Figure 2-2 and Chart 2.2 shows the revenue forecasts by mobile/wireless software applications providers market from 2006 to 2015.

FIGURE 2 - 2

Mobile/Wireless Software Applications Providers Market: Revenue Forecasts (Europe), 2006-2015

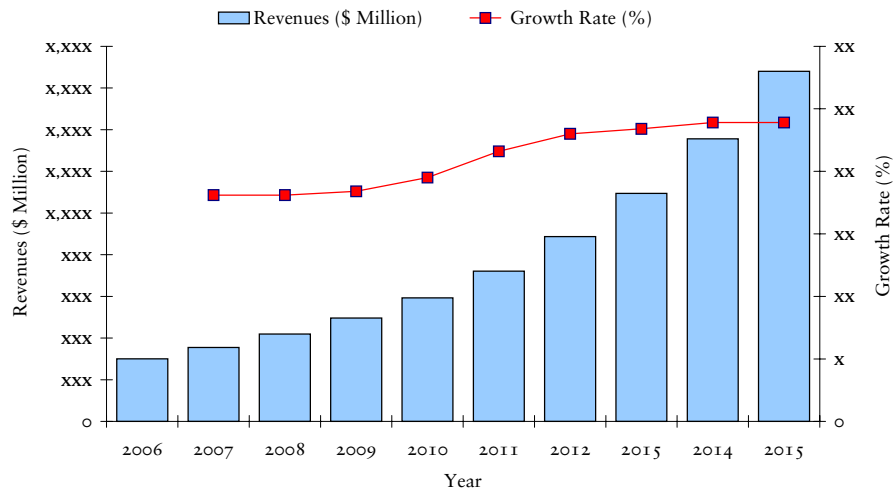
Year	Revenues (\$ Million)	Revenue Growth Rate (%)
2006		
2007	354.9	18.1
2008		
2009		
2010		
2011		
2012		
2015		
2014		
2015		

Compound Annual Growth Rate (2007-2015): xx.x%

Note: All figures are rounded; the base year is 2007. Source: Frost & Sullivan

CHART 2 . 2

Mobile/Wireless Software Applications Providers Market: Revenue Forecasts (Europe), 2006-2015



Note: All figures are rounded; the base year is 2007. Source: Frost & Sullivan