

Rapidly Rising Cost of Healthcare Demands More Efficient Care Delivery Systems

The Advent of Smart Medicine & Healthcare

Device networking has many widespread applications in the medical venue. For example, patient information is important to connect to used/applied devices. OEMs can connect their products to legacy hospital systems for patient care and billing purposes—e.g., pharmaceutical companies for billing drugs, hospital supply companies for billing disposables, medical device companies for monitoring the use and performance of electromechanical products in facilities or the home. There are an extraordinary range of connectivity opportunities in healthcare. Another example of device networking is chronic disease management. Here, the patient is connected, via a self-administered medical device, to the healthcare provider without an office visit. Patients, doctors and healthcare insurers are all interested in reducing unnecessary office visits and increasing quality of care without increasing cost. One way to do this is promote and facilitate smart self-care. Interested parties could include healthcare providers, managed care organizations, and medical device manufacturers.

The nature of the medical venue requires that products be extremely durable and very secure. Hospitals and equipment manufacturers could face legal action if a device fails; so remote monitoring and maintenance are vital. The devices also need to be simple to install and control, and they should result in greatly reduced paperwork and diagnostic or recording errors. Upgrading, repairing, or altering products in the field is so costly that it is highly beneficial to access and diagnose operations problems remotely rather than sending personnel to a site. Eventually, everything from huge point-of care machines to tiny in-body devices will be networked. The potential financial and health benefits of networked medical devices and electronic medical records are huge; the challenge lies in financing the implementation of new technologies

Key Forces & Trends

If ever a sector of the economy needed system-level intelligence, optimization, and automated asset management, it is Healthcare. The healthcare/medical venue's biggest problem is that its providing institutions frequently have no idea how to anticipate their costs. Hospitals have historically been run like public institutions, managing reactively, spending on traditional expenses like equipment and staff, and lagging 5-7 years on new (non-medical) technology adoption. Yet recently, a new breed of hospital managers are beginning to realize that they must start running hospitals like businesses, focusing on cost cutting, and keeping an open mind to new technologies that may help them achieve this.

Hospitals are spending more on IT. As long as it will save them time and/or money, hospital administrators are generally open to new computing,

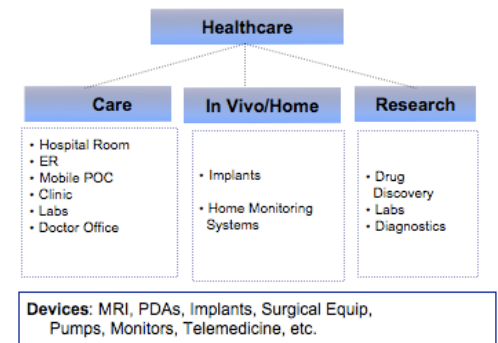
Harbor Venue Coverage

Venues and markets we address in our Pervasive & M2M research and analysis include:

- Energy & Power
- Industrial Systems
- Retail
- Smart Homes & Buildings
- Healthcare
- Physical Security
- Transportation
- IT & Comms Systems

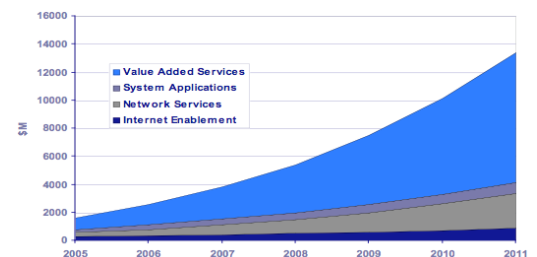
Healthcare Venue Segmentation

The Healthcare Venue includes applications in care facilities, in-vivo/home, and research labs. Managed services & solutions in this venue are focused on asset mgmt, supply chain/replenishment and location services designed to provide remote monitoring, diagnostics, and tracking capabilities for doctors, patients, and equipment.



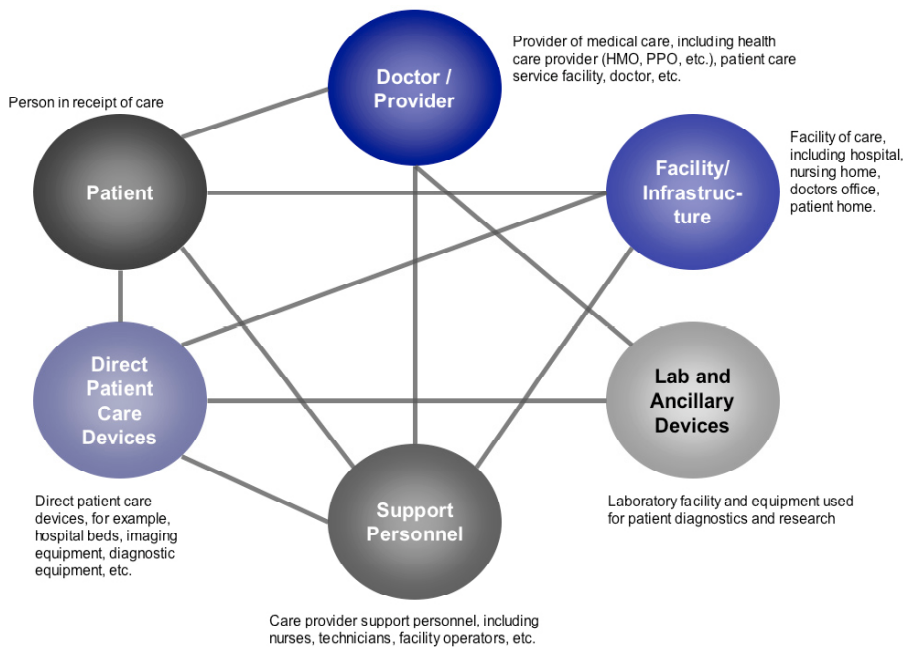
Venue Scale & Growth Potential

Value added capabilities and managed services within the Healthcare venue alone could grow to as much as \$9 billion by 2012.



networking and software solutions. Decision makers will look for systems that can demonstrate ROI, and expect the company selling the system to be able to prove that up-front. The most often wished-for solutions are those that could unify many hospital procedures, leading to scheduling efficiencies.

Early technology offerings have made hospital administrators much more receptive to the potential of technology solutions. The typical U.S. hospital patient encounters an average of 75-80 medical devices per day. As even a fraction of these devices are brought online, the effects of the technology enablement are felt throughout institutions.



As hospitals and healthcare providers increasingly deploy these sophisticated information systems to improve and streamline patient care, third-party connectivity specialists offer key business, technology, and regulatory advantages over other strategies. Device connectivity from these specialists enables improved clinical decision-support, helping to reduce medical error, improve productivity, control operating costs and providing a greater return on investment.

Given that so many healthcare equipment manufacturers have moved towards machine-to-machine (M2M) and pervasive networking, the next stage of development in this arena will involve the much tougher challenge of designing and developing relationships between and among larger integrated systems providers, equipment and device specialists and professional services organizations.

We Clarify the Business Value

We understand that most potential adopters see the M2M / Pervasive Internet world as a daunting terra incognita. The technologies are difficult, the standards are constantly evolving, and the vendor landscape can seem fragmented and bewildering.

We make industry knowledge a key element of our toolkit. In order to keep ourselves fully up-to-date we perform continual analysis and research into specific markets and the maneuvers and strategies of the best performers. Our ongoing research gives us a rich context in which to view each client's opportunities and challenges.

We have direct consulting experience with virtually all the supply side and adopter segments within the over buildings arena

About Harbor Research

Harbor Research, Inc. has been providing strategic consulting and research services to leaders in communications, computing, control, equipment and content since 1983. Harbor's keen eye toward market results is manifest in all of our processes and tools, providing clients with the perspective they need to make best-informed decisions. We emphasize interactive analyses, the incorporation of outside perspectives, time-efficient workshops, and action-oriented decisions. Our multifaceted approach, ranging from the research we publish to the fully customized consulting engagement, provides optimal value to our clients and has also allowed us to develop important advantages as a firm.

Contact Us For More Perspective

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