

## FROM THE MEDICAL FRONT

# Virtualization 2.0 Gives Patient Care A Global Boost

By: Adrian Barrios / AngioFoundation Tech Review

Dr. Robert L. Bard, 40+ year diagnostic imaging professional in NYC has scanned countless cancer patients from some of the most prominent health centers both locally and abroad. They received point of care screenings or second opinion scans (in person) about a wide array of health concerns from cancer tumors to traumatic injuries. Expanding on digital innovations, access to Dr. Bard's radiology practice extends to the virtual realm as a remote medical overreader of ultrasound scans via private web portals.

The advent of medical ultrasound technology advanced medical imaging protocols to support a completely digital, non-invasive and affordable platform for physicians, resulting in the globalization of access and cross-continental collaboration. Groups like the NY Cancer Resource Alliance recently published Dr. Bard as one of the top advocates of medical virtualization - earmarking his vision for a "borderless medical community".



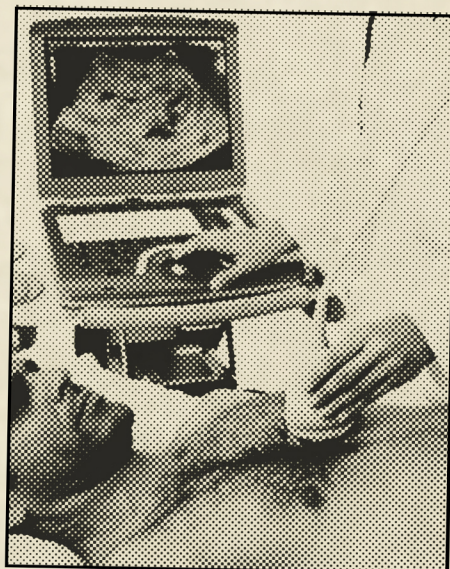
Dr. Bard began his career in radiology in 1970 at the US Air Force. He was a medical consultant for the American Embassy where he communicated confidential x-ray files and medical reports from Vientiane, Laos through a private transmission exchange system.

He opened his private diagnostic practice in NYC in 1976, partnering with local and foreign hospitals (for

his work with the 3D Doppler Imaging of Cancer tumors). Patients of cancer centers from as far as Queensland (Australia), France, Italy and Germany would travel internationally to see him. This scenario fostered the need for a remote collaboration portal between doctors.

By 2018, Dr. Bard designed a web-based program called R.E.D.S. (Remote Emergency Diagnostic Solutions). This application enabled pre-hospital ultrasound in ambulance rigs with field access to ER physicians or a radiologist to confirm patient readings in the field. This year, Dr. Bard is launching a similar virtual remote program for offshore commercial vessels and military ships.

During the early months of the Covid-19 crisis, ultrasound manufacturers worldwide fast tracked their engineering design to respond to the current field demands of the front lines. Triage areas and critical care physicians may encounter patients with respiratory symptoms, pulmonary embolism and other potential signs of covid-related symptoms which calls for a fast, accurate and portable scanning. These Point of Care Ultrasound Solutions (POCUS) often came with secure WIFI access to allow for quick file sending and access to any physician or radiologist for conclusive image evaluations. "These feature-rich portables are so intuitive-- many of them come with organ presets to help speed up your time with the patient ...and connecting with your tablet or cell phone via WIFI is just brilliant", states Dr. Bard.



Dreamstime.com

The earliest form of virtualization referred to a non-physical version of hardware, storage devices, and computer network resources, much like web hosting or cloud-based solutions. In Dr. Bard's medical imaging orbit, virtualization incorporates key elements of Telemedicine, Secure File-Accessing, Real-Video Conferencing and Dynamic Data Sharing between medical professionals. "30 years deep into the internet, our communication has finally caught up to allow us to work on any patient at any time from any location. The security aspect and high-speed exchange for conferencing has (finally) been perfected to make this a reliable platform for medicine. I have found myself to be "remoted" everywhere from surgeries to cruise ships to European clinical trial conferences... virtual technology really streamlines so many critical aspects of patient care!" ■