

SATELLITE-BASED NETWORKS FOR MEDASHIP AND EMISPHER

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Telemedical networks have enabled the integration of medical competence and contribute to the improvement of the quality of medical care and to the cost-effective use of medical resources. In the field of videocommunication technology OP 2000 has played a crucial role in various leading-edge projects during the last decade. The technology used consists of Workstations for Telemedical applications via Satellite (WoTeSa) which are made up of off-the shelf components (e.g. Pentium IV processor, >2GHz, 512 MB RAM, Osprey video capture board, Canon VC-C4 camera, etc.) and the communication software called WinVicos (Wavelet-based interactive video communication system) which supports real-time video, audio and still images transmission together. Using the same technology, several projects are currently being realised.

In MEDASHIP (2002-2004, Medical Assistance for Ships) an integrated system for telemedical consultations on board of ships was set up. The system should allow an improved medical care for passengers and crew members. The ships will be equipped with an ultrasound medical system and an electro-cardiograph interfaced to WoTeSa / WinVicos as well as a satellite terminal on a stabilized platform. In the reference hospitals (RH) satellite terminals coupled to WoTeSa / WinVicos will be used. In this MEDASHIP network every ship will be able to communicate with different RH's.

Aim of EMISPHER (2002-2004, Euro-Mediterranean Internet-Satellite Platform for Health, medical Education and Research) is to establish an equal access, for all countries of the Euro-Mediterranean area, to the quality of service which is required for the delivery of on-line services for health care. Satellite technologies combined with Internet application services will guarantee the required bandwidth when and where it is needed at the desired quality. E-learning applications, real-time telemedicine and shared management of medical assistance files will be realised.

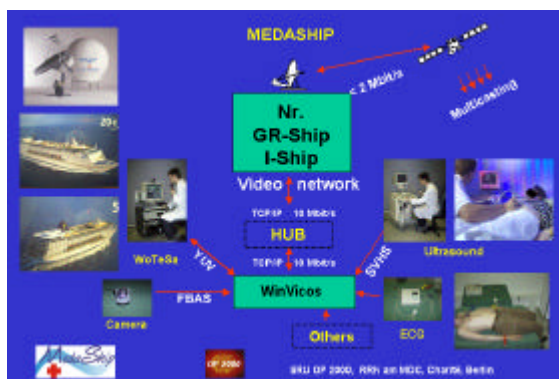


Fig. 1 MEDASHIP Network

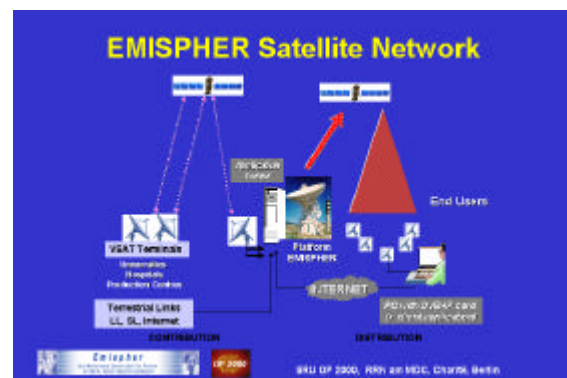


Fig. 2 EMISPHER Network

In cooperation with: Eutelsat, Paris (F), D'Appolonia, Genova (I), ISMETT, Palermo (I), Telemedicine Technologies, Paris (F), Telespazio, Roma (I), Demokritos, Athens (GR)