CASEMaker®

DBMaker Case Study

Customer: **National Taiwan University Hospital**

System: **Distance Diagnosis Management System**

System Purpose

For quite a long time, there has been an unbalanced distribution of medical resources in Taiwan. To improve the medical quality in remote areas or islands, there is a great demand for developing the technology of distance diagnosis.

The above mentioned demand has been fulfilled by National Taiwan University Hospital (NTU Hospital). With the excellent multimedia management ability of CASEMaker's DBMaker, the Information Center of NTU Hospital was able to develop the Distance Diagnosis Management System and to highly improve the medical service quality in those remote areas.

This Distance Diagnosis Management System, entirely developed by NTU Hospital, uses DBMaker for server information management on SUN Solaris 2.4. It can be connected on-line with hospitals in KinSang--one of those remote areas--and transmit diagnostic information such as medical history and X-ray films.

The current distance diagnosis processes are as follows: Doctors in remote hospitals send medical history to the Distance Diagnosis Service Center at NTU Hospital via the Internet and then notify patients to standby at remote hospitals during the appointed time. If for non-simultaneous diagnosis, the information of patients can be saved into the database of NTU Hospital and be reviewed by doctors later. If there are sonar or microscopy examination items during the diagnosis process, the information can be transmitted in digital format to NTU Hospital for reference. After finishing diagnosis, suggestions, prescription and consultation reports will be provided on-line.

This system enables users to access multiple formats of medical information, including text, graphics, audio, video and dynamic or static information, such as X-ray and sonar results. The medical information is directly accessed via browsers. All of the diagnosis information will be stored in a database and doctors at NTU Hospital can access the information via the internal network at any time.

System Architecture

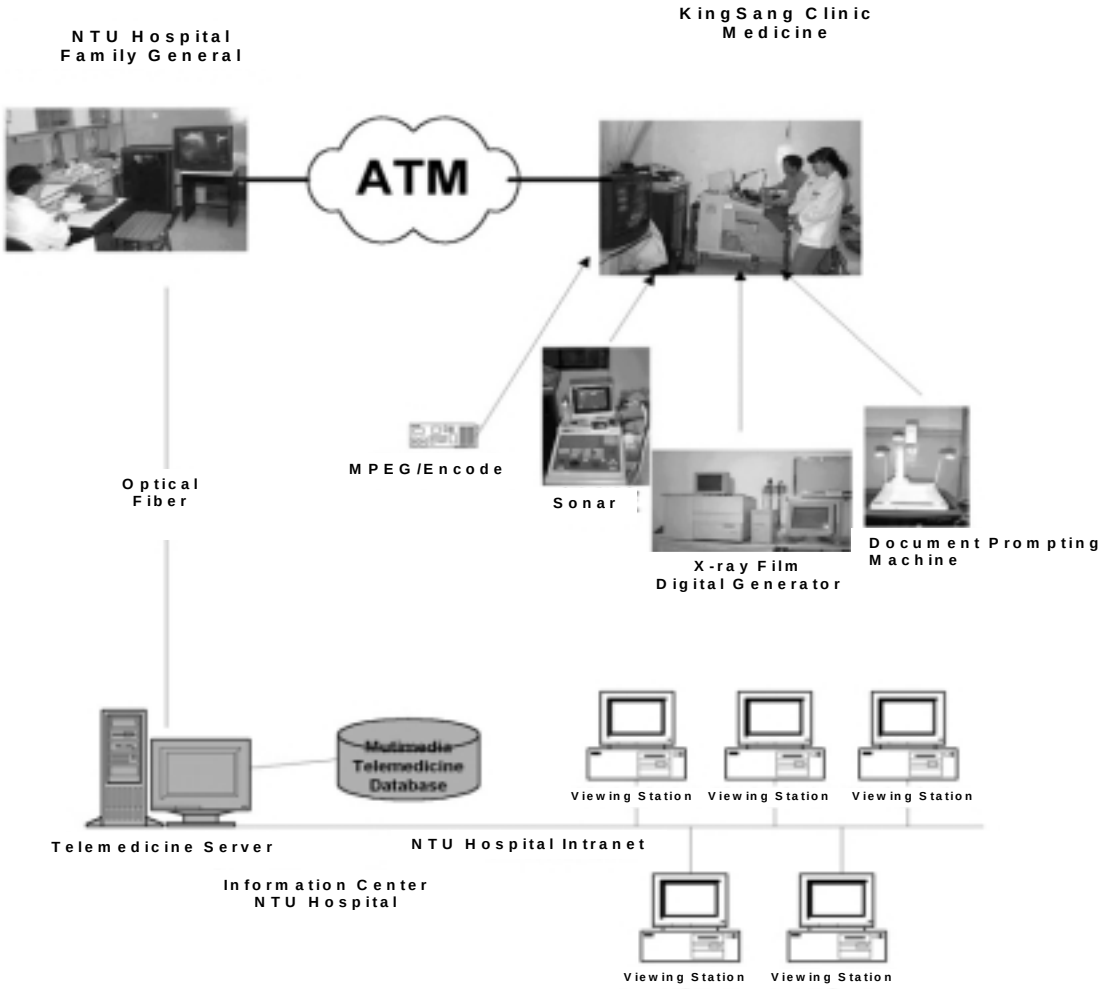
In the system architecture, there is a GPT focus 400 two-way, on-line conversation system and a Medical Multimedia Database, which is developed by the Information Center of NTU Hospital with DBMaker. This multimedia database allows users to access various formats of dynamic or static medical information, including text, graphics, audio data, video data, image, x-ray films, sonar results and so on. Currently the above data can also be accessed with browsers via the Internet. All of the distance diagnostic information is stored in this database and doctors at NTU Hospital can access the information via internal network at any time.

Software:

Item	Name
Database Server Operation System (Server OS)	SunOS
Workstation Operation System (Client OS)	Windows 95/98
Database Management System (DBMS)	DBMaker 3.0
Application System	Medical Multimedia Database

Customer: National Taiwan University Hospital

Hardware: GPT focus 400



Development Tool & Period

Development tool: Delphi & C
Development period: 18 man/month

On-line Date

January 1997

Data Volume

Current data volume: 10 GB

Benefits

1. Provides doctors with current diagnostic information at any time of the day or night
2. Increase efficiency for delivery of medical services in remote areas, as well as save travel time
3. Provides functions for processing new data types, including multimedia management, object management, double-byte support and others to ensure complete and fast access to data