ITEA
INFORMATION TECHNOLOGY FOR EUROPEAN ADVANCEMENT

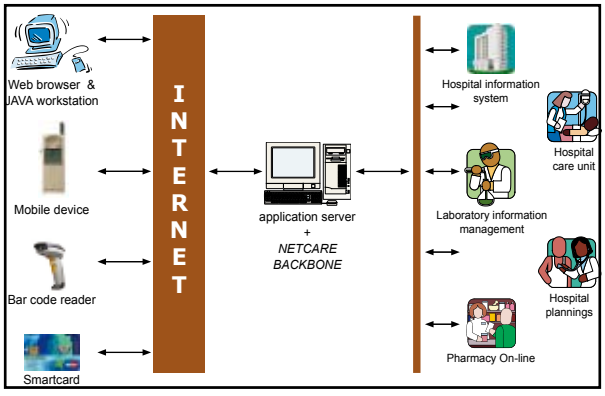
PROJECT RESULTS

A secure infrastructure

for healthcare applications

The Internet is an important engine for development and innovation in the health sector. New technologies are allowing information and services to be brought closer to increasingly informed citizens. In this environment, public administrations, insurance companies, and Internet service providers are faced with both opportunities and challenges.

A European healthcare framework
NETCARE has designed and developed a modular, open, secure network infrastructure built with European software components according to official or *de facto* standards, making use of up-to-date technologies to support services that will be used by healthcare applications.



Functional approach

NETCARE will help healthcare professionals and users gain access to clinical services and information, especially remote access to one's own clinical data (something that was not possible in the past). This major advance was developed in response to significant public demand.

An expanding market
These days, people expect to receive information on their medical condition any time any place. A Cyber Dialogue report forecasts that in 2005 88.5 million people will be searching for health-related information through the Web. Today an estimated 36 million people surf for such information and some 40% of all Internet searches are healthcare-related. This has led IT companies to implement strategies for providing content, communication and even e-commerce in this sector

There is also considerable demand for healthcare-related software. Frost & Sullivan report income of €148.6 million in this sector since 1997 (with annual growth of around 1.8%). Medical software vendors are expected to supply interoperable components, which can integrate with existing hospital information systems so that medical information can be shared between diverse programmes. Patient medical information must, however, be secure and delivered only to those with the right to view it. NETCARE provides the interoperability and scaleable security solutions that match the needs of public healthcare organizations.

Re-usable components
NETCARE includes a range of software components:

- A Deployment & Exploitation Toolkit of software components for programmes running in the Application Server (including Data Management, Documentation Management, Dynamic Reports & Statistics, Dynamic Menus and Bar Code modules).

NETCARE (ITEA 99033)

Partners
Akazi Technologies
Etiam
GIE Convergence-Profils
IMS
INDRA Sistemas
Medasys

Countries involved
France
Ireland
Spain

Start of the project
July 2000

End of the project
July 2002

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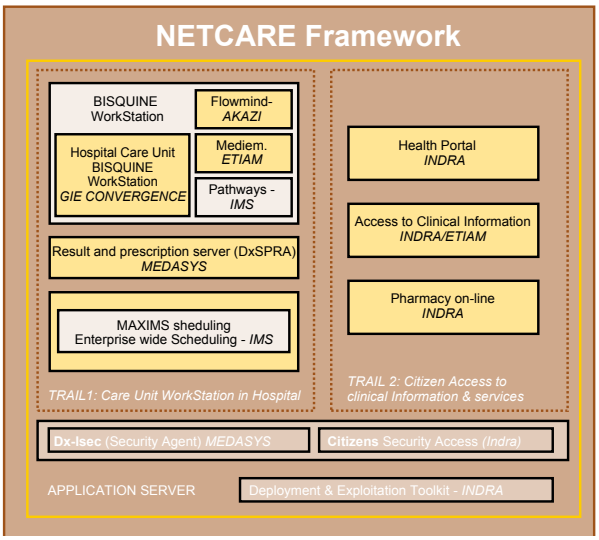
- A middleware (BISQUINE) which permits cooperation and secure, transparent access to distributed services for health sector professionals through a customized, user-friendly graphical interface.
- An enterprise-wide scheduling system, which will be used to manage resources and the diaries of patients as well as track the status of appointments throughout the health care organisation.
- A generic Health Portal for access to project information, services and applications stored on different systems.
- Security agents (DxISEC and Citizen's Security Module for Access and Operation) providing selective access to applications and medical data, based on user authentication and profile management.



In order to validate its concepts and Application Programming Interfaces (APIs), NETCARE has carried out two successful trials:

1. in a professional environment (care unit laboratory), demonstrating the operability of the NETCARE platform on a care unit workstation, allowing navigation between several medical applications, including a Web-based server displaying prescriptions and test results
2. demonstrating how the NETCARE platform can be used to provide citizens with a secure access to public or private health services as well as to clinical information.

Main applications

Various NETCARE partners are developing products based on the project's results:

- INDRA is commercialising NETCARE know-how, technologies and software e.g. by creating a toolkit for Application Server administration and a tool for developing multipurpose portals.
- MEDASYS will provide customers with a scaleable set of security options, based on DxISEC. MEDASYS will also satisfy requirements for providing access to patient data from any PC connected to the hospital network through a simple browser.
- GIE CONVERGENCE has integrated BISQUINE into its new generation of hospital software packages and the CHU (University Hospital) in Lille has already signed a contract for all of its care units from the second half of 2002.
- ETIAM has focused its project work on developing a secure messaging middleware called MEDIEM, which is directly connected to information systems and medical equipment, enabling bi-directionnal exchange of multimedia medical documents between hospitals and healthcare professionals.
- IMS is extending its scheduling system to support scheduling of resources for therapeutic radiography. This phase will be delivered at the end of 2002.

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ITEA - Information Technology for European Advancement - is an eight-year strategic pan-European programme for pre-competitive research and development in embedded and distributed software. Our work has major impact on government, academia and business.

ITEA was established in 1999 as a EUREKA strategic cluster programme. We support coordinated national funding submissions, providing the link between those who provide finance, technology and software engineering. We issue annual Calls for Projects, evaluate projects, and help bring research partners together. We are a prominent player in European software development with more than 5,000 person-years of R&D invested in the programme so far, and another 10,000 anticipated over the next five years.

ITEA-labelled projects build crucial middleware and prepare standards, laying the foundations for the next generation of products, systems, appliances and services. Our projects are industry-driven initiatives, involving complementary R&D from at least two companies in two countries. Our programme is open to partners from large industrial companies, small and medium-sized enterprises (SMEs) as well as public research institutes and universities.

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