

**DPS 25**

**PACKET SWITCHING SYSTEM**

BIBLIOTHEQUE DU CERIST

**IST 612**

**SESA**



# SESA

SESA, formed in 1964 by a team of engineers who constitute the nucleus of its present management, is one of the top-ranking international firms specialized in the ANALYSIS, DESIGN and DEVELOPMENT of computer-based systems for private industry as well as for various government departments in the following areas :

- INDUSTRIAL APPLICATIONS
- DEFENCE AND AEROSPACE APPLICATIONS
- INFORMATION AND DECISION-MAKING SYSTEMS
- ADMINISTRATIVE AND ACCOUNTING MANAGEMENT
- COMPUTER NETWORKS AND COMMUNICATION SYSTEMS
- SYSTEMS SOFTWARE
- DATA BASES
- COMPUTER-AIDED DESIGN

In the course of performing over 500 such projects, SESA has also developed an expertise in the management of large-scale, complex projects.

The most important factor behind SESA's competence in Data Processing Services, Consulting, and Engineering is its internal commitment to professional training of the staff (approximately 600 persons, of which 54 % are engineers) as well as the development of methods and "tools" which enable the industrial production of software. All of SESA's projects are designed, implemented and controlled using this SESA-developed industrial methodology -MELUSINE- and can, therefore, meet SESA's high standards for quality. Furthermore, through the use of MELUSINE, SESA is also able to guarantee its prices, delivery dates, and performance levels whatever the nature of its services.

SESA is active in all studies and implementation phases for computer-based systems : feasibility studies, system architecture, development of specifications, technical coordination on projects, programming, integration, user training, start-up, after -sales service and full Turnkey Systems (hardware and software). SESA has also developed special purpose hardware, dedicated to real-time systems, in addition to its accumulated and considerable knowledge regarding all technical aspects of hardware such as mini and micro computers.

SESA's recognized expertise and years of experience guarantee that, regardless of the close and effective relationship it has developed with the data processing equipment industry, it is totally committed to serve the interests of its client.

SESA's North American headquarters are located in Boston, Massachusetts. Furthermore SESA has offices in France, Germany, Belgium and has performed projects in most European countries, as well as in the Middle East and South America.

SESA's capital is shared by its top management (45 %), the CGE group (45 %), and SERETE (10 %), a general contractor.

The consolidated revenues of SESA in 1978 reached 30 millions US dollars.

## SESA AND NETWORKS

SESA has been solving users data communication problems for almost a decade. SESA's professionals have designed new systems and improved the performance of old ones. They have served in every capacity, from consultant on a data communication preliminary study to prime contractor on the implementation of a turnkey system. They have conceived, designed, and implemented, both hardware and software, working independently or in collaboration with other contractors. Their activities have sometimes embraced the fabrication of turnkey applications modules. They have responded to the needs of users representing a cross section of the DP community, from small private organizations to large government agencies.

Thanks to this experience, SESA has now an exceptional technical skill and a privileged position within this field. SESA is working or has been working on most of the national or international networks which exist today. SESA has not only studied networks design but has also developed, implemented networks, linked terminals and computers to networks, and operated networks.

SESA's most significant references in the procurement of packet switching networks are the following :

- 1) Implementation of the EIN packet-switching network, which connects the premier European centres of data networking research.  
This network is now operating between five centres.  
It is financed by ten European countries and the Euratom Administration.

2) TRANSPAC

At the beginning of 1976, the French Telephone and Telecommunications Ministry, after an international call for tender, appointed SESA prime contractor for TRANSPAC, the National Public Data Communication Network. This network is designed to ensure national coverage and handle thousands of subscribers, including banks, Public Administrations, reservation systems, transaction oriented users, etc... The initial switching capacity of the network can handle the projected traffic for the next ten years, and can then be expanded to cover even more users.

3) EURONET

In 1977, SESA was awarded by the nine european PTT Administrations, the contract, as prime contractor for the implementation of the network of the European Community, EURONET. This network will cover the nine countries of the EEC, and may be expanded as an international Public Data Network.

4) International Railways Association

At the end of 1978, after an international call for tender, the Union Internationale des Chemins de Fer awarded the contract to SESA for the implementation of the HERMES network which will link the national Railways Networks all over Europe allowing international transactions for seats booking and wagons management. This first DPS 25 network will be delivered before the end of 1980.

## THE DPS 25 PACKET SWITCHING NETWORK

1.- GENERAL -

Two standard solutions are, today, proposed by SESA to build public or private networks.

The first one selected for TRANSPAC and EURONET Network is in operation and has been designed for very large public Networks (aiming to several ten thousand users).

The second one is a new version of the same product and only differs in the technology used. Totally compatible with the first version, it offers the same services in terms of international standard accesses and protocols. Being based on the last development in the field of micro-computer, it insures a greater flexibility and presents a very attractive cost effectiveness for smaller Networks.

This product represents the best usage of existing techniques and technology for data communications. It can provide a very high degree of reliability, is easy to operate and allows a considerable reduction of maintenance costs.

Based on hardware equipment manufactured on a large scale for a broad range of applications, it takes benefit of all the advantages of industrial series production. At the same time, its modularity allows for following the progress of technology in the future.

This product (DPS.25) has already been selected for the UIC European Network (International Railways Association).