# LSX 5000 System Line
# LSX 5000 in OSA

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The Information Technology market requires increasingly complex and rapidly evolving solutions which offer more than industry compatibility and standards compliance.

The market also requires suppliers to respond with solutions defined within a precise framework: solutions which can be designed with a high level of integration between the products in the offer and within existing environments. A frame of reference that allows, on the one hand, rapid adjustment to the user's growing needs, and on the other, integration of the features that technology makes available.

## OSA: THE ARCHITECTURE

The Olivetti Systems & Networks (OS&N) response to these requirements is OSA (Open System Architecture), a systems offer integrated into an open architecture, with both the functional elements and their interfaces clearly defined.

Since its launch in 1987, OSA has successfully addressed the growing needs of the market, providing a frame of reference for sophisticated computing solutions which have taken it into complex and prestigious market areas such as banks, financial institutions and the public sector. Building on this success, the LSX 5000 System Line,integrated within OSA, will continue to offer guaranteed quality, high performance and reliability, and investment protection.

## COMPLETE COMPUTING SOLUTIONS

OSA extends the concept of a "system" to everything that constitutes the computing solution, including the products, their interconnections, the way resources, such as data, applications, processing and services, are distributed within the solution.

The LSX 5000 System Line is one of the essential components of OSA for the development of advanced solutions for medium-sized firms and departments of large corporations.

The LSX 5000 has been developed using industry-standard hardware including Intel 486 microprocessors, the EISA bus and the SCSI interface. The i486 microprocessor offers state-of-the-art technology and an excellent price/performance ratio. EISA (Extended Industry Standard Architecture) provides access to a vast catalogue of controllers and peripherals, and the SCSI interface ensures connectability of a wide range of magnetic peripherals.

These LSX 5000 features not only mean that prior investments are protected but also that there is complete freedom to integrate hardware and software components available on the market. The LSX 5000 systems support the most popular operating systems, such as Olivetti UNIX System V Release 4.0 (the Olivetti version of AT&T's standard UNIX System V Release 4.0), UNIX SCO 3.2, MS OS/2 and MS-DOS.

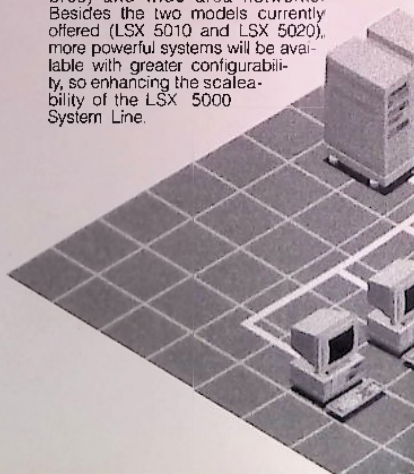
OS&N has characterised its system offer by integrating, certifying and personalising high quality components to guarantee optimum results. To this end, excellent hardware and software has been chosen and developments have been implemented to satisfy even the most sophisticated user's requirements.

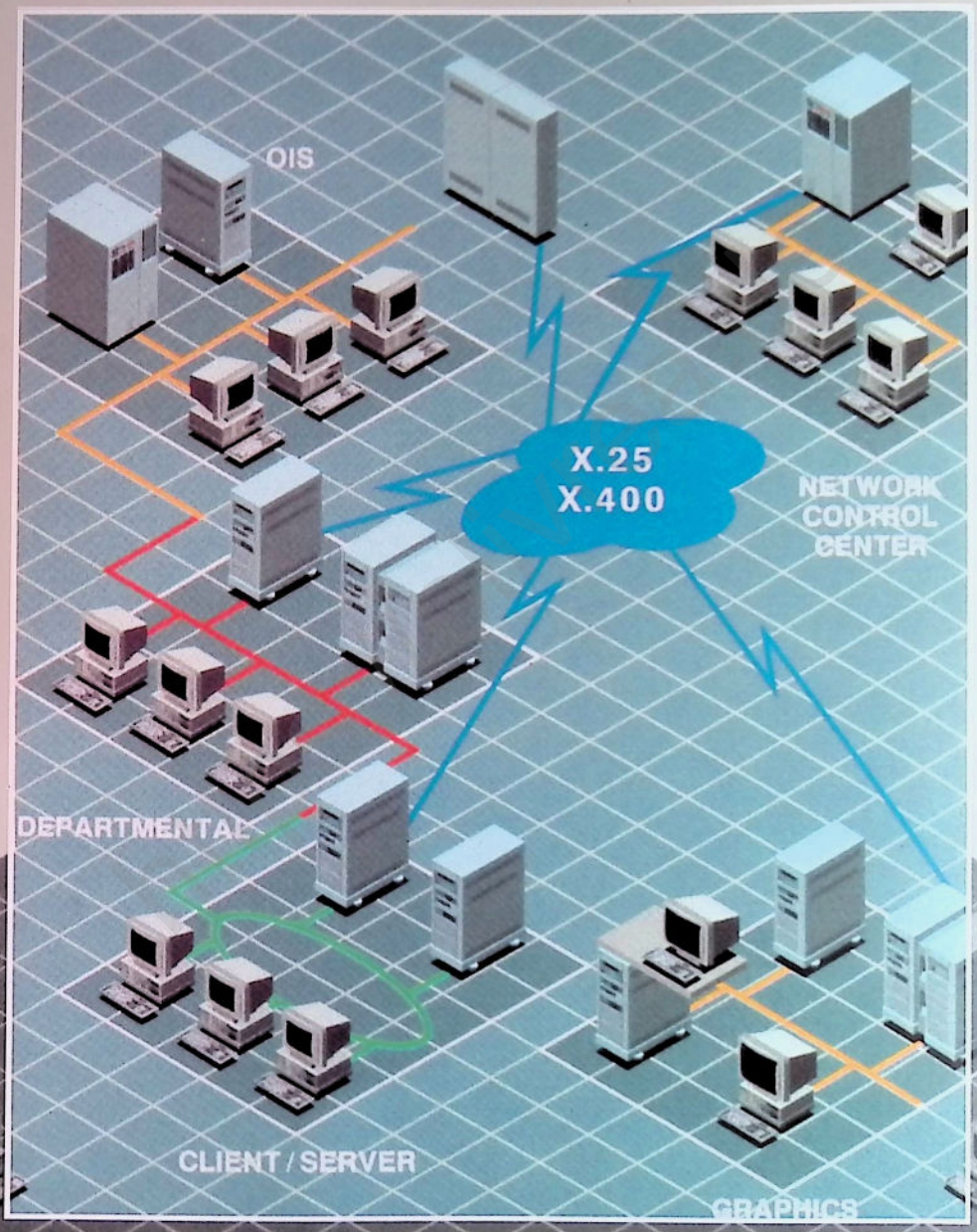
## HARDWARE CHOICES

The main hardware features include:

- Central, high speed memory, expandable to 64 MB.
- Extensive mass memory configurability of up to 1.2 GB on the base system, and optional extension to 6.3 GB using the PEM (Peripheral Expansion Module).
- Optimised data access management using "disk-pair" technology.

- Wide range of storage media to meet the requirements of diverse applications including:
  - 1.44 and 1.2 MB diskettes
  - 150 and 320/525 MB SCSI streaming tape
  - High capacity cartridges (2.3 GB)
  - 650 MB erasable optical disks
  - 650 MB WORM/erasable
  - 1600/6250 BPI compatible tapes.
- High levels of reliability and availability due to:
  - A stand-by power supply, integrated with the software and activated by a power failure, ensuring that the system is shutdown properly and maintains data integrity.
  - A telediagnostic function that enables speedy and efficient diagnosis of the hardware and software from remote systems.
- High data resilience by means of disk mirroring.
- Optimised support for workstations provided by a wide selection of "multiport" controllers (ISA and EISA).
- A wide choice of specialised high-performance controllers for connection to local area networks (Ethernet, Cheapernet, 10 base T, Starlan, Token Ring, and optical fibres) and wide area networks. Besides the two models currently offered (LSX 5010 and LSX 5020), more powerful systems will be available with greater configurability, so enhancing the scaleability of the LSX 5000 System Line.



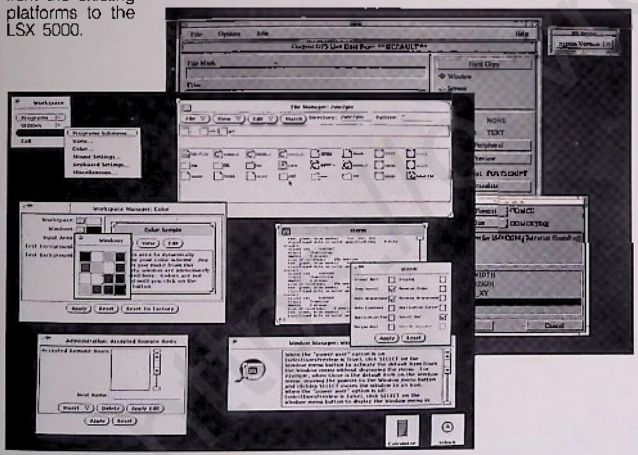

OIS
X.25
X.400
NETWORK
CONTROL
CENTER
DEPARTMENTAL
CLIENT / SERVER
GRAPHICS

## SOFTWARE CHOICES

LSX 5000 software complies with OSA defined international standards, both for its operating system and its extensive software catalogue.
The LSX 5000 uses the Olivetti UNIX System V multi-user operating system, Release 4.0, which conforms to X/Open XPG3 branding, the current UNIX standardisation process level. It offers complete binary compatibility for applications on all the models in the line, and extensive portability to and from other hardware. Olivetti UNIX System V Release 4.0 also features the UNIX System V roadmap defined by the international standards bodies (UNIX international, X/Open, etc) in which Olivetti takes part.
The LSX 5000 system software catalogue includes a series of high quality products characterised by their excellent performance. These products also represent an element of continuity for the offer and ensure easy portability of applications from the existing platforms to the LSX 5000.

The main products offered are:

- **Languages:** Green Hills C, Pascal and Fortran, and Microfocus Cobol/2.
- **Data Bases:** Oracle 6.0 TPO in stand-alone mode or distributed over a local (TCP/IP, LAN Manager) or wide area networks (LU 6.2, X.25); Informix 4.0 in stand-alone and distributed mode (TCP/IP).
- **CASE:** Upper and Lower CASE tools for Client/Server environments, such as Tasis, Envision and Oracle CASE.
- **User Interfaces:** X Window, OPEN LOOK, Motif. The Industry Standard open architecture, on which the LSX 5000 systems are based, gives access to the extended catalogue of applications available in the different operating environments, such as Olivetti UNIX System V Release 4.0, MS OS/2, MS-DOS and SCO UNIX System V.



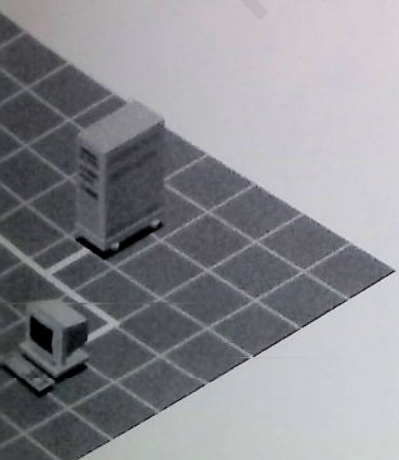
## THE DISTRIBUTED ENVIRONMENT

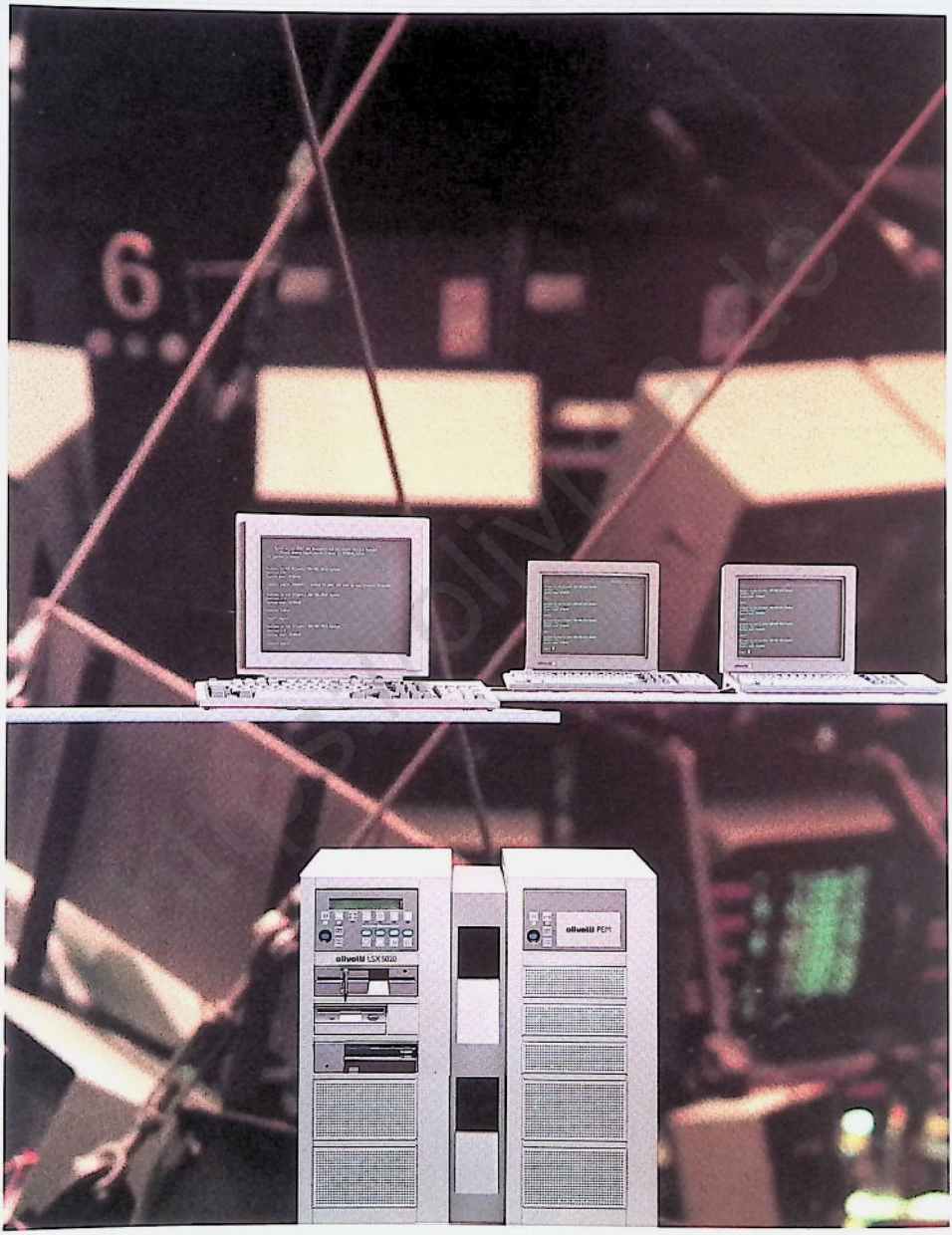
The distributed environment (local area networks, wide area networks and mainframe connectivity) is the key feature of computing solutions in the 1990s. LSX 5000 in OSA meets the requirements of this environment with a widely integrated offer in conformance with standards.

The high integration level of these components means that it is possible to design complex systems, in which the resources can be distributed at different organisational levels cooperating with one another. These resources can then be accessed simply and transparently wherever they are located.
The nucleus of the distributed environment is the Olinet LAN Manager/X network operating system, recognised by the main international standardisation organisations, such as X/Open and the Open Software Foundation.
LSX 5000 systems manage heterogeneous local area networks (UNIX Servers and MS-DOS and/or MS OS/2 Clients) with Olinet LAN Manager, or homogeneous local area networks (UNIX Clients and Servers), via TCP/IP and NFS.
The local area network can easily be integrated with the outside world, using communications products for connection to host computers by means of the most widely sold protocols (SNA, BSC, VIP, etc.) as well as a range of products for ISO/OSI Wide Area Networks.
Compatibility with DECnet and DARPA is another aspect of extended connectivity for which LSX 5000 supplies a solution.

## NETWORK MONITORING

The services for managing and controlling X.25 and SNA networks, the Network Monitoring System (NMS) and the Local Monitoring System (LMS) are also of particular importance. A hybrid network with END SYSTEMS based on different operating environments (UNIX, MS OS/2 or MS-DOS) can be managed from a single control centre. The main services provided are software distribution, collection of network statistical data and alarm handling.
The NETVIEW GATEWAY allows LSX 5000 systems to be integrated into the SNA environment using the IBM Network Management service.
LSX 5000 systems in a network running the same type of software are controlled by a Manager System, using the SNMP protocol.




olivetti LSX 5020
olivetti PEM

## APPLICATION SOLUTIONS

LSX 5000 systems can meet the requirements of a wide range of applications, thanks to their high performance levels, the delicate balance between the computing capacity of the processor and the advanced I/O subsystem, their extensive configurability and the wide choice of software and network environments.

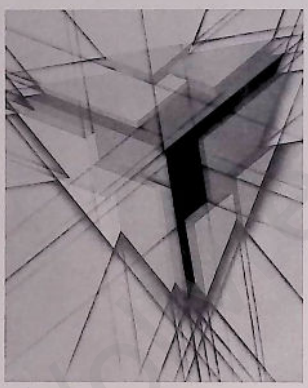
For the most common application profiles, OS&N has chosen logical groupings of hardware and software components with the best performance for the user's particular environment. This results in optimum application-based solutions which offer many advantages, including:

- Simplified definition and development of solutions.
- Guaranteed quality to meet the highest market standards.
- A configuration guide to optimise performance of individual solutions.
- Continuity and application investment protection guaranteed as technology evolves.
- After-sales support services.

The basic application solutions are as follows:

- **Business System.**
  Centralised management of applications that users can access by means of terminals connected to the system.
- **Cooperative System.**
  Applications principally resident on intelligent workstations (MS-DOS and MS OS/2) use a LAN to access services and resources on the LSX 5000.
  Cooperative Processing, based on the Client/Server architecture, allows efficient resource sharing amongst a group of users.
- **Departmental System.**
  Applications distributed and cooperating at three levels: Work-area (intelligent workstations), *Department* (hardware system) and *Corporate* (mainframe).
  The system has centralised and network software which makes it the communications node for passing information between applications on the mainframe and applications in the LAN, in addition to allowing resource sharing. An additional feature is the database management system for relational databases.
- **OIS** (Office Information System).
  Office automation system based on Client/Server architecture.
  Solution based on IBIS.

These application solutions, besides being complete, are also reference solutions for **vertical markets**, eg. the *Public Authorities, Financial Institutions, Distribution, Industrial, Commercial and Service Company sectors.*



## OFFICE INFORMATION SYSTEM

IBIS (Integrated Business and Information System) is the OSA application offer for the office information environment. IBIS can integrate intelligent workstations, hardware systems, networks and services to create solutions to meet all office automation application needs.

IBIS offers:

- A cooperating environment based on Client/Server architecture.
- Object-oriented user graphics interface.
- Integration of the applications connected in a network.
- Connectivity with multivendor environments.
- Compliance with the most important market standards.
- Capacity to integrate the Office Productivity Tools available on the market.

## RELIABILITY: QUALITY AND SERVICES

The LSX 5000 offers maximum reliability, due to the total quality objectives reached during the design and production phases, and to a wide range of services for maximum customer satisfaction.
LSX 5000 reliability, which starts at the initial design phase, and continues throughout production, is obtained by means of careful testing of the components and of the assembled system. Certification and qualification tests follow, which balance the solution with users' requirements.

Optimisation of the solution continues at the customer site with the help of the highly qualified field service and telediagnosis of any of the hardware and software components.
Telediagnosis offers fast response times for maintenance and reduces down-time.

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