Apricot VX-Net open networking software provides an advanced, user-friendly means of linking autonomous PCs and workstations together. For large or small networks, or for linking one network to another, VX-Net provides the most sophisticated, yet accessible solution currently available.
VX-Net represents the latest evolution in networking software from Apricot.

VX-Net is an "open" networking system, giving users the power to break free from proprietary restrictions. By conforming to de facto industry and international standards, VX-Net is an advanced implementation of Microsoft MS-Net, designed to support all MS-Net/NETBIOS application and communication software.

At its simplest, VX-Net can link a group of PCs together, allowing them to share data, peripherals and other resources. But it is its ability to link multiple work-groups, using local or wide area technologies to form the connection, that distinguishes it from its competitors.

VX-Net can even provide links between networks using different protocols. An Ethernet network, for example, can be connected to a remote Token Ring network.

But the key to success for any network is the ability to effectively and easily control data communication and resources. This is particularly true for a multi-vendor/multi-host environment where many combinations of hardware and software need to be linked on the same network. With this in mind, VX-Net is equipped with powerful network management tools to cope with the most complicated varieties of equipment. Not only do these support the many powerful features of VX-Net, they enable access to them to be fully controlled.
APRICOT COMPUTERS' OPEN NETWORK

The world of open systems is now reaching maturity. At its heart lies the concept of sharing information between different computers without the proprietary restrictions which have characterized the industry to date. VX-Net has been designed to achieve this goal as simply and efficiently as possible.

Apricot's commitment to open systems is total. Subject to continual development, Apricot's open systems strategy is aimed at providing workgroup solutions based on intelligent workstations and servers. It affects the entire range of computing resources, including hardware, operating systems, user interfaces and, of course, networking technology.

As a central part of its architecture, Apricot VX-Net removes all dependency on proprietary technology for networking purposes. By fully supporting the industry networking standards, VX-Net can be used to connect a mix of Apricot products and other AT or PS/2 compatibles. Apart from the popular IBM/VX architecture, VX-Net can support any NETBIOS-based networks, including the Ethernet and Token Ring standards.

Furthermore, Apricot's migration strategy for adoption of OSI, and more particularly in the UK the Government OSI Profile (GOSIP) standard, along with Microsoft/IBM's SMB servers, enables VX-Net to support the widest possible selection of third party application and communications software.

At last, users can determine both hardware and software environments independently to suit their particular needs.

HARDWARE

An idea of the flexibility which this software gives to the user can be gained from the range of possible hardware combinations. Apart from all Apricot computers, including the Apricot PC, XEN-AT compatibles, VX and VX series, VX-Net supports all IBM PC/AT and PS/2 compatible computers, configured as servers or workstations. A range of diskless and single floppy disk drive-based workstations can also be added to the network, including Apricot VX WS and VX 386 AIVS machines.

Up to ten file servers can be connected, allowing large or multiple applications to be distributed across a number of servers. Because of this the full network bandwidth information can be passed across the network very quickly.

Flexibility is also the key to the range of peripherals which can be attached to a VX-Net network. For example, shared modem connections can be used for external communications, while a variety of print spooling facilities will support multiple printers at any server.

Furthermore, the VX-Net software manages the hardware resource in the most efficient way possible. By using industry-standard 'above memory' techniques to hold network software on each workstation in memory above 640K, VX-Net ensures that at all times, the maximum amount of memory is available to the applications.

NETWORK MANAGEMENT SUPPORT

Any network system can be complex to install. This is particularly true when different types of machine are connected, since they acquire and use data in different ways.

With many networks, the task of configuring a specific application requires individual users to define the kind of hardware they are using, paying particular attention to the type of processor and screen. They also have to know a great deal about the network as a whole, particularly with regard to the location of resources such as printers, disk and communications services. The complexity doesn't stop there, however. Additional information which needs to be specified includes the combination of DOS, Windows 2, Windows 386, OS/2 and Presentation Manager.

Apricot has always been aware of the necessary complexity of networking technology. As a result, a key feature of all Apricot networks has been to remove all such configuration worries from the user.

![Change the definition of a workstation](image)

| Machine type | 1 Xer | 2 IBM | 3 IBM PC/XT (E) |
| Screen type | 1 Hercules | 2 IBM CGA | 3 EGA/VEDA |
| Number of hard drives | 0 1 2 3 4 5 6 7 8 9 10 |
| Number of floppy drives | 0 1 2 3 |
| Network card type | 1 PS/2/PICOMAX | 2 OMSI | 3 OMSI Z coax |
| Use Command disk | Yes No |
| SMP Printer type | 0 |
| Maximum open FDUs | 10 |
| Number of local device drivers | Add |

[OK] [Cancel]
SECURITY

With VX-Net, it's the network manager's task to define all the options for each workstation. To this end, at the heart of VX-Net lies the network management program, NETGEN.

Specifically, NETGEN provides a menu-driven management tool to allocate users to network resources, define interconnections, and impose different levels of user access. By tying together the software, which forms the basis of VX-Net, NETGEN provides a sophisticated, yet intelligible approach to building a network. To the user, the network appears as a choice of accessible resources which are automatically connected as he logs on. No detailed knowledge of how the connections are made is required.

COMMUNICATIONS

For many organisations, security considerations are as important as network performance.

With VX-Net, Apricot has provided several layers of security options to suit the needs of individual installations. These include facilities for controlling user access to the system (name and password); imposing read, write and create restrictions on individual users; and controlling access to nominated files. All such facilities are simply defined by the network manager using the NETGEN program, which in turn can be password protected.

With the increase in data storage capacity on network servers and the growth in multi-user network applications, the ability of a network to withstand system failures and reduce downtime is also an increasingly important issue.

Among the VX-Net options is a software fault tolerance facility - VX-Net SFT. This allows a second disk subsystem to maintain a mirror copy of the data and programs stored on the file server. In the event of a drive failure, caused by media, disk, power supply or controller, data is transparently accessed from the second drive, preventing any loss of data or system failure.

The ability to share information by connecting processors via a local area network has enabled the power of computers to be distributed with great effectiveness and efficiency. For many organisations, similar gains can be made by connecting resources at a higher user level, by bridging the gap between previously autonomous LANs. For example, it is perfectly possible to connect a LAN in the accounting department to a LAN in the sales office. Without Apricot VX-Net, the LAN-LINK option has been developed to do just that.

Using the server or a workstation to provide the communications gateway, A particularly powerful feature of LAN-LINK allows for the connection of networks which are not based around similar network topologies. Technically, the software provides a SMB/NBT bridge, which, provided the different LANs support MS-Net, enables networks of dissimilar layers, such as Ethernet, Omnet or Token Ring, to be connected together.

LANs can also be connected over Wide Area Network (WAN) connections, using LAN-LINK X.25, implemented to operate on the Apricot VXL CSU which carries both hardware and software from British Telecom. This version of LAN-LINK generates X.25 packets of information, for transmission over a private or public X.25 network, such as British Telecom's PSS. With LAN-LINK X.25, therefore, users can form national or international networks using all types of digital connections, including leased, dial-up, leased, private, and PSS lines.
TAPE STORAGE AND ARCHIVING

In addition to LAN-LINK, a wide variety of communications products, including ICL CO3 and IBM 3270 gateways, are available from third party organisations which, because they conform to the NETBIO505 standard, are supported by VX-Net. Typically, these take the form of mainframe emulations running on a dedicated workstation, and providing a multi-access gateway for all attached network workstations.

APRICOT QI ENVIRONMENT

The Apricot QI Environment software pack provides powerful easy to use desktop communications, electronic mail and security enhancements for the QI range of personal workstations. VX-Net (3.1 and above) includes server support for these features (similar features will also be made available for AT-style workstations in future Environment releases).

DESKTOP COMMUNICATIONS

When used in its network configuration, the QI Environment desktop communications facilities can be configured to allow modem connections to external hosts and data feeds to be centrally located on a server on the network - but still available to all machines with QI Environment support.

SECURITY FEATURES

VX-Net also provides integrated support for the on-board security features of Apricot QI. In particular, support for machine level user name and password combinations targeted to access the hardware can be automatically used when accessing the network. Support is also provided for importing and exporting lists of user names between the network generation tools and the Apricot QI security tools.

ELECTRONIC MAIL

The electronic mail facility within the QI Environment provides a full Windows Presentation Manager network electronic mail environment.

Features include mailboxes, password and administration tools, message editor, user and group level recipients, prioritised mail, automatic notification of incoming mail, notification of mail read by recipient and context sensitive help. Additional packs allow support for dial-in remote mail access, inter-network mail and future support for the X400 international standard for electronic mail systems.

Particularly useful features for network systems include unattended operation mode with seven day timer for applications like off-peak file transfer, control language to automate communications tasks, and event logging.

VX-Net contains powerful system and data archive utilities, with support for Apricot's high speed 125 Mbytes SCSI tape drive, plus access to WORM (Write Once Read Many) optical disk technology for long term data storage.

VX-Net allows networks of different physical architectures to be linked both locally and remotely over WAN's such as X.25, into a single coherent system.
SPECIFICATION

Apricot VX-Net
Apricot VX-Net is an advanced implementation of Microsoft MS-Net, designed to support a variety of physical layers, IBM PC/AT and PS/2 compatible workstations and servers, early Apricot PC models, and multi-user software using MS-DOS 3.1 and above.

Physical layers
- Omnimet: 1 Mbit per second data rate
- Ethernet (IEEE802-3): 10 Mbit per second data rate
- Token Ring (IEEE802-5): 4 Mbit per second data rate

Maximum capacities
- 64 Omnimet devices, 250 Ethernet/Token Ring devices per network (a device is a VX1000 server, Apricot PC/ workstation or industry standard PC/AT compatible)
- 10 servers per network
- 32 workstations per file server - Omnimet
- 64 workstations per file server
- Ethernet/Token Ring
- Six printers per file server

VX-Net Software Pack
- Enhanced MS-DOS 3.3 with multiple printer support
- MS-NET
- NETBIOS
- Network Management Tool
- NETGEN
- Logon and Logoff
- EMW/386 Expanded Memory Manager
- Windows
- File caching
- Support for Ethernet, Token Ring, Omnimet and any NETBIOS LAN hardware
- On-site and optional remote diagnostics
- Advanced Back-up and Restore

Options
- Gateway links: terminal emulation from workstation, LAN-UNK X25 LAN-UNK, shared modems
- Software Fault Tolerance

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Apricot reserve the right to alter specifications without prior notice.

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