

PrimeComputerOverview

Background

Based in Natick, Massachusetts, Prime Computer, Inc. is an international Fortune 500 company with more than 19 years of experience in systems integration. Prime markets general-purpose computer and CAE/CAD/CAM systems in 53 countries throughout North America, Latin America, Europe, the Middle East, Africa and the Asia Pacific Basin. Prime's major products include the 50 Series TM, a multitasking, fully compatible line of superminicomputers, the industry-standard Prime EXL TM family of multi-user, multitasking supermicrocomputers, and a full line of integrated CAE/CAD/CAM solutions based on PCs, workstations, minicomputers, and mainframes.

Prime Computer also offers standard communications products for distributed processing networks. Since 1979, when Prime introduced PRIMENET, its wide area network (WAN) and local area network (LAN) software for PRIMOS-based 50 Series systems, the company has developed other WAN and LAN products. These include PRIME/SNA, which allows Prime computers to connect to IBM environments, and PRIMELINK software, which is used to connect Prime systems to the Apple Macintosh computer and PC-DOS-compatible personal computers.

Prime implements industry-standard protocols, such as X.25, IEEE 802.3 Ethernet, and TCP/IP. All of Prime's communications products are compatible, and any Prime communications product can be used on any 50 Series system without modification.

Connectivity Between Prime Systems

PRIMENET Configurations

PRIMENET software is used to interconnect Prime systems in a proprietary, token-passing LAN called RINGNET, or in an industry-standard IEEE 802.3 CSMA/CD LAN, called LAN300. PRIMENET software offers a range of ways to connect systems that are located far from each other. If heavy access is required, Prime systems can be connected via leased telephone lines or even via satellite in a synchronous, point-to-point network. If only occasional access is required, an asynchronous dial-up network may be used.

TheEnvironment

PRIMENETServices

Remote Terminal Access allows any terminal in a LAN or WAN to access any Prime host on the network. Remote File Access allows users to access files on other networked Prime systems without regard to their physical location. For specialized network applications, an interprocess communications facility provides a high-level language subroutine interface. Another facility, the File Transfer Service, is a queued mechanism for transferring files between systems.

X.25Interface

PRIMENET software also provides access to X.25-based Packet Switched Data Networks (PSDNs). All the PRIMENET software services previously mentioned are available when X.25 is used, just as if the link were based on the RINGNET LAN.

TCP/IPforPRIMOS

TCP/IP is supported across Prime's broad range of products: terminal servers, 386-based supermicrocomputers, CAE/CAD/CAM workstations, and supermini-computers. TCP/IP for PRIMOS supports: mail transfer among 50 Series system users and other users on the network with Simple Mail Transfer Protocol (SMTP); file transfer applications using File Transfer Protocol (FTP); remote access to and from a 50 Series system via Server and User Telnet; and (4) program-to-program communication with another system on the LAN supporting sockets.

Prime Computer directly supports the integration of Macintosh systems into its networking solutions, through PRIMELINK software, which is described in the following section.