Prime Computer Overview

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 super microcomputers, 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, a synchronous dial-up network may be used.

TheEnvironment

PRIMENETServices

RemoteTerminalAccessallowsanyterminalinaLANorWANtoaccessanyPrime hostonthenetwork.RemoteFileAccessallowsuserstoaccessfilesonother networkedPrimesystemswithoutregardtotheirphysicallocation.Forspecialized networkapplications,aninterprocesscommunicationsfacilityprovidesahigh-level languagesubroutineinterface.Anotherfacility,theFileTransferService,isa queuedmechanismfortransferringfilesbetweensystems.

X.25Interface

PRIMENETsoftwarealsoprovidesaccesstoX.25-basedPacketSwitchedData Networks(PSDNs).AllthePRIMENETsoftwareservicespreviouslymentionedare availablewhenX.25isused,justasifthelinkwerebasedontheRINGNETLAN.

TCP/IPforPRIMOS

TCP/IPissupportedacrossPrime'sbroadrangeofproducts:terminalservers,386-basedsupermicrocomputers,CAE/CAD/CAMworkstations,andsupermini-computers.TCP/IPforPRIMOSsupports:mailtransferamong50Seriessystem usersandotherusersonthenetworkwithSimpleMailTransferProtocol(SMTP); filetransferapplicationsusingFileTransferProtocol(FTP);remoteaccesstoand froma50SeriessystemviaServerandUserTelnet;and(4)program-to-program communicationwithanothersystemontheLANsupportingsockets.

PrimeComputerdirectlysupportstheintegrationofMacintoshsystemsintoits networkingsolutions,throughPRIMELINKsoftware,whichisdescribedinthe followingsection.