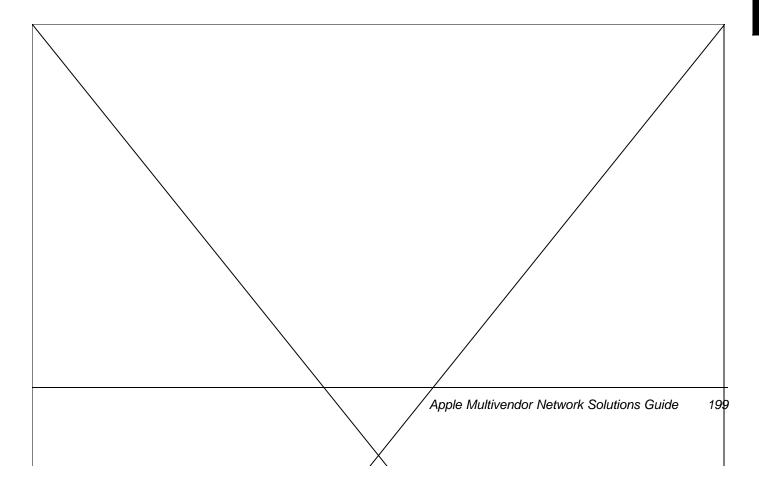# Tandem Computers Overview

Background

Tandem Computers, Incorporated, offers a full range of computing systems, expanding from small multiprocessor departmental machines to very large transaction processing systems. The company is a leader in the worldwide on-line transaction processing (OLTP) market, one of the fastest growing markets in commercial data processing. Tandem pioneered on-line, fault-tolerant computing, and is the primary supplier of such systems.

Tandem concentrates on transaction processing systems that consist of many processors, distributed databases, and large networks. Because the Tandem architecture is specifically engineered for distributed OLTP, Tandem applications support many thousands of terminals, intelligent workstations, and other devices. Tandem's fundamental advantages are in OLTP price/performance, linear expandability of processing power, fully distributed SQL databases, data integrity, security, and fault tolerance.

Tandem now offers Macintosh personal computers as part of its product line, bringing Macintosh into major corporate OLTP systems.

The Environment

Tandem computers are installed by banks, manufacturers, major retailers, and other transaction-oriented businesses. Many automatic teller machine (ATM) systems, stock exchanges, bank funds-transfer operations, manufacturing applications, and library services run on Tandem computers. In addition, more than 200 third-party software vendors provide application solutions for Tandem customers.

Tandem Computers: The Hardware Environment

Tandem networks can have as many as 255 separate nodes (locations), each of which can be configured to support up to 16 processors. Using the GUARDIAN 90 operating system, all Tandem systems are able to share applications, distributed databases, and communications.

Hardware and software are designed specifically for OLTP, and Tandem's modular design allows users to develop systems over time and to distribute processing without changing their applications. Full data integrity guarantees that distributed customer databases will be consistent and accurate after every transaction.

Tandem provides a communications support environment that includes integrated support for TCP/IP, NetBIOS, SNA, X.25, and other industry standard protocols. Tandem systems are compatible with a range of languages, including Pascal, C, FORTRAN, COBOL, and the Tandem Application Language (TAL).