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DISTRIBUTED DATA PROCESSING
IN GOVERNMENT AND INDUSTRY

AN ABSTRACT

BY

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The purpose of this thesis is to acquaint the reader with a concept known as distributed data processing. The concept of distributed data processing is the wave of the future and will influence us all in some manner. The biggest impact of distributed data processing will be on management. The major gains from distributed data processing will come from increasing the productivity and effectiveness of managers.

The intention of this paper is to introduce, define, and develop a reader awareness of distributed data processing. This paper will:

1. Define distributed data processing.
2. Distinguish distributed data processing from the more traditional data processing.
3. Point out the advantages of and disadvantages of distributed data processing.
4. Outline the principles basic to the design of a distributed data processing system.

Distributed data processing is a method which blends centralized and decentralized processing into a system whose benefits can be felt throughout an organization - from headquarters to outlying operating units. In a

distributed data processing system there are fewer interactions between the host computer and the local controllers than there are between a central site and the terminals in a centralized system and thus establishing a good potential for substantial savings in central processing and communications costs.

At the user site, distributed data processing can provide the resource for greater application growth and faster data processing. Distributed data processing offers users a new dimension of independence and availability - particularly in the event of an extended central processing or communications failure. Distributed data processing also offers a new productive balance of centralized control and decentralized operation, which can be critical in today's competitive environment.

This paper discusses at great length the components of distributed data processing network - computer hardware, processing power, the data base, and the control over the network. This freedom to mix, match, and deploy both human and electronic resources to heighten organizational effectiveness may will serve as a challenge to utilize computer technologies that are already far ahead of management's present understanding of their potential.