ABSTRACT

The development of architecture which will facilitate office automation by enabling various office machines to cooperate in performing office system functions is examined. The goals and objectives for the initial steps toward an automated office system are related to an enumeration of the specific architectures which will be required. A general description of the capability of each architecture is given along with a discussion of specific architectural requirements and key problem areas. Some examples of architectural solutions to key problems are given. Specifically the approaches taken to the problem of precise architectural definition as it relates to text architecture are discussed. Finally some thoughts on future office system requirements and their architectural implications are given. This paper attempts to enumerate considerations and in some cases approaches to solutions for the office systems architecture problem. The contents are based on approximately three years of office systems architecture development work involving a variety of actual office products.
ARCHITECTURE FOR OFFICE AUTOMATION

INTRODUCTION

In attempting to discuss the architectural problems which are implicit in office automation, one must first attempt to describe the function of an "office" and examine those parts of that function which are candidates for "automation". An office may be defined as a function within a business enterprise where information is collected, analysed and exchanged with the goal of improving some aspect of the enterprise. One may examine the common aspects of information flow in an office without regard for the specific function which any given office serves in a given enterprise.

A business enterprise may be viewed as a collection of "offices". These offices are not rooms but logical organizational entities each of which have a functional purpose within the business. Small businesses typically have large functions such as sales and manufacturing as offices in the sense described. Larger businesses would typically define offices at a finer granularity; for example, manufacturing might be composed of functions like purchasing, parts, assembly, and control. Each office accomplishes its goals through a process of information synthesis and decision making. Information must be collected, analysed, communicated, stored, retrieved and presented in the process of an office achieving its function within a business.

Therefore, one may assert that the primary objective of an office is the efficient collection, exchange, retrieval and presentation of information such that people can make timely decisions concerning the function of the office. All offices are critically dependent on efficient communication to enable them to carry out their function. Information must be effectively communicated among members of the same office in order to insure that the common goals of that office are being effectively pursued and that the proper input for decision making exists. Communications between the office and other organizations are