1.1 What Operating Systems Do

■ 4 Chapter 1 Introduction user 1 user 2 user 3 computer hardware operating system system and application programs compiler assembler text editor database system user n … … Figure 1.1 Abstract view of the components of a computer system. We begin our discussion by looking at the operating system's role in the overall computer system

■ A computer system can be divided roughly into four components: the hardware, the operating system, the application programs, and the users (Figure 1.1). The hardware—the central processing unit (CPU), the memory, and the input/output (I/O) devices—provides the basic computing resources for the system

■ The application programs—such as word processors, spreadsheets, compilers, and Web browsers—de■ne the ways in which these resources are used to solve users' computing problems

■ The operating system controls the hardware and coordinates its use among the various application programs for the various users. We can also view a computer system as consisting of hardware, software, and data

■ The operating system provides the means for proper use of these resources in the operation of the computer system

■ Like a government, it performs no useful function by itself

1.1.1 User View

■ It simply provides an environment within which other programs can do useful work. To understand more fully the operating system's role, we next explore operating systems from two viewpoints: that of the user and that of the system. The user's view of the computer varies according to the interface being used

Original Text Length 1726 ' | Highlighted Text Count: 1601