Chapter V
Server Operating Environment and Business Continuity Drivers

CHAPTER OVERVIEW

After identifying major downtime points within a client-server architecture in Chapter IV, Chapter V discusses in more details enterprise servers and server operating environments from continuous computing and business continuity perspective. The main features of enterprise servers are identified and a framework for selection of the server operating environment is presented.

ENTERPRISE SERVERS

Server operating environments consisting of enterprise servers, server operating systems and serverware applications are introduced. The role of these components in enhancing continuous computing levels is explained. Examples of most widely used server platforms are provided.

From historical perspective, the following categories of computer systems can be identified as most common: supercomputers, mainframes, minicomputers, workstations, and personal computers.
Today, the old-style mainframes and minicomputers are mainly replaced by “enterprise servers” or simply “servers” although some companies still have in use the “big-iron” mainframes or minicomputers. Today’s high-end servers already possess the supercomputing power, while new supercomputer systems are implemented in either single-node or multi-node configurations. In addition, the term “computer” has been renamed into “computing device” with newly designed portable and mobile computer devices. Several computer configurations have been added to the previous list such as: portable computers, mobile computers, mobile-portable devices, personal digital assistants, tablet PCs, smart-phones, and so forth.

Modern business computing is dominantly based on the two main types of information system architectures:

- an old-style mainframe environment and
- several models of client-server architectures.

In a mainframe-operating environment, mainframe computer does the whole data processing; dumb terminals, terminal emulation programs and client software on PCs are used to enter/get data.

Client-server architecture consists of one or more servers and a number of clients with applications running on server computers. From business perspective, server configurations and server operating systems (SOS) are expected to provide an operating environment that must meet much more rigorous requirements than a standard desktop operating system can provide.

Figure 5.1 shows the old-style IBM mainframe from the 1960s, while figure 5.2 shows Digital VAX minicomputer from the 1970s.
