

1. Disk cache contains a copy of some of the sectors on the disk to shorten the I/O delay. Larger disk cache size able to store more sectors and improve the I/O performance.
2.
 - a) The application can be designed as multithreaded. The threads can execute on different core simultaneously to gain higher performance.
 - b) Threads can share files and communicate easily. Time taken to create, switch and terminate thread is lesser.
3.
 - a) Desktop operating system is not designed to be a server and the default configurations will not meet the security requirements of a proper server.
Inexperience administrator might not be able to configure the server properly.
The server is not located in a specialised room and anyone can get access to the server physically and perform illegal or unethically operation that might harm the company.
The backup storage is not ready, data might be lost forever.
 - b) The room should be installed or equipped with additional security features to prevent unauthorised person to enter.
Consider to upgrade to server operating systems.
Unnecessary services in the operating system especially services that connect to network should be disabled.
The data in the internal hard disk or external backup storage must be encrypted.
4. First, running the *fdisk* program from the hard disk is a mistake. It may be infected and it may infect the boot sector. It has to be run from the original CD-ROM or a write-protected medium. Second, the restored files may be infected. Putting them back without cleaning them may just reinstall the virus.
5. Executing any program from an unknown source is dangerous. Self-extracting archives can be especially dangerous, because they can release multiple files into multiple directories, and the extraction program itself could be a Trojan horse. If a choice is available it is much better to obtain files in the form of an ordinary archive, which you can then extract with tools you trust.