Dar es Salaam Institute of Technology

SHARED WARE COMPUTER SYSTEM

1. INTRODUCTION

A shared ware computer system is a system designed in such a way that one system unit can be used by several users. The number of users connected to one system depends on the number of expansion slots provided. However, the recommended optimal number of users is six (6).

A shared computer system is a cost effective solution in terms of power consumption because several users use (share) one computer (CPU) and a UPS at the same time. In addition a user is added by adding interfacing card and peripherals (a monitor, a keyboard and a mouse) instead of buying a full unit. It is useful for training sectors, Internet café, offices etc.

Figure 1 A shared computer system

2. OPERATION

After the necessary connections and configurations have been done, there is normally a need to take a very short training on how the system works. The computer speed cannot be affected much by adding a user. The additional user reduces the computer speed by approximately 1%. This means that if your Processor speed is 1GHZ then by adding one user the speed of processing information will be reduced to 990MHZ, see Figure 2..
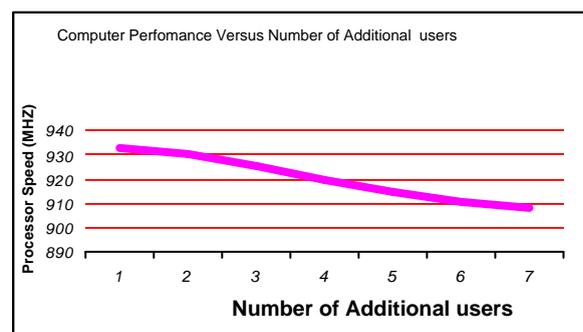

Computer Perfomance Versus Number of Additional users

Figure 2.

Contact: 1. The Principal;   Tel: + 255-22-2152294 /2150174, Fax : +255-22-2152504, E-mail: principaldit@intafrica.com   1
   2. Manager RCB;   Tel: + 255-22-2150174, Email dos@dit.ac.tz
   3. Computer Studies Dept. (Attn: Mr. Portin L. Ng'imba); Tel: + 255-22-2150174, E-mail: nportin@hotmail.com

3. COST OF A SHARED WARE COMPUTER SYSTEM

3.1 COMPONENTS OF A SHARED WARE COMPUTER
The cost of a shared ware computer system include
- ? Cost of buying a computer
- ? Additional peripheral costs (e.g monitors, keyboards and mouse, etc)
- ? Maintenance costs
- ? Transport costs (for sites outside Dar es Salaam)

3.2 BASIC REQUIREMENTS FOR A SHARED COMPUTER SYSTEM
Before having a shared computer system, it is necessary to have a complete computer system that will connect other additional users. The Cost of buying for example a Pentium 4 Computer system (Monitor, Keyboard, Mouse, System Unit) is approximately US Dollars 1,100. Technician(s) will need to see whether the computer system has a required number of expansion slots for adding additional users or not.

3.3 COSTS FOR ADDITIONAL USERS
Any additional user will need the following additional costs:
- ? Interface card per one additional user is between 250 - 350 US Dollars
- ? Buying a Monitor/Display (15″, 17″), a Keyboard and a Mouse for one additional user is between 180 - 320 US Dollars
- ? A connection and configuration charge per additional user is 25 US Dollars. Configuration can either be done onsite (at a respective Laboratory or Office) or at DIT.

3.4 OTHER COSTS:
- ? If the connection is to be done out of Dar es Salaam City, then our Technician(s) must be paid a modest Per diem.
- ? Annual maintenance contracts are negotiable.
- ? Transport costs out of DSM have to be met by the Client.

Contact: 1. The Principal;   Tel: + 255-22-2152294 /2150174, Fax : +255-22-2152504, E-mail: principaldit@intafrica.com   2
2. Manager RCB;   Tel: + 255-22-2150174, Email dos@dit.ac.tz
3. Computer Studies Dept. (Attn: Mr. Portin L. Ng'imba); Tel: + 255-22-2150174, E-mail: nportin@hotmail.com