

MODULE 4
INFORMATION
TECHNOLOGY AND
SYSTEMS



WHAT DO YOU NEED TO START A FIRM

- ▶ Telephone
- ▶ Computer
- ▶ Printer
- ▶ Fax
- ▶ Scanner
- ▶ Copier

SUMMARY

- ▶ What do you need to start a firm from scratch
- ▶ How can IT make your live easier

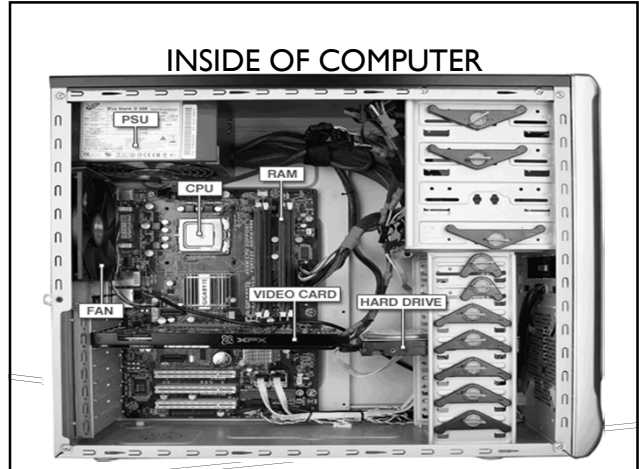
TELEPHONE

- ▶ Switchboard or cellphone
- ▶ Must have two lines
- ▶ Buying or rental
- ▶ Telkom or Neotel

COMPUTERS

LAPTOP	DESKTOP	HANDHELD
A laptop is a small, self-contained computer. The focus is on portability. If you want portability, and don't mind a higher cost and worse multimedia and graphics performance, get a laptop.	A desktop system usually consists of multiple separate components like the CPU (the computer itself), monitor, keyboard and mouse. If you want the best performance, and a lower cost, and don't mind heavy equipment and no portability get a desktop.	A handheld is very portable: It will fit in your pocket. If you want simple information management, or want an "almost-laptop" device integrated into a cellphone, get a handheld.
Laptops perform very well, far better than handhelds, but rarely as well as equivalently-priced desktops	Given an identically-priced laptop and desktop, the desktop will perform much better than the laptop. Additionally, desktops are better at handling upgrades. Things like extra memory, more drive space or multiple optical drives: These will all perform better and be cheaper on the desktop.	Multimedia and graphics are extremely limited. They're primarily intended for information storage and management, though they can have many specialized applications, and often come integrated into cellphones
Small size means you can easily throw it into a bag or carrying case and go.	A desktop means you've got a lot of separate pieces making up your system. This leads to low portability and difficult transportation.	Handhelds are usually pocket-sized, or can be attached with one of those cool-looking belt clips.

INSIDE OF COMPUTER



▶ COMPUTER DICTIONARY FROM SOUTH AFRICA

- ▶ Monitor
- ▶ Keeping an eye on the braai

- ▶ Download
- ▶ Get the firewood off the bakkie

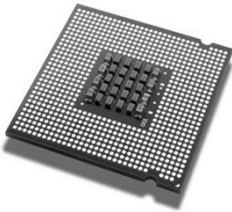
- ▶ Hard Drive
- ▶ Trip back home without any cold beer

- ▶ Keyboard
- ▶ Where you hang the bakkie and bike keys

- ▶ Window
- ▶ What you shut when it's cold

CENTRAL PROCESSING UNIT (CPU)

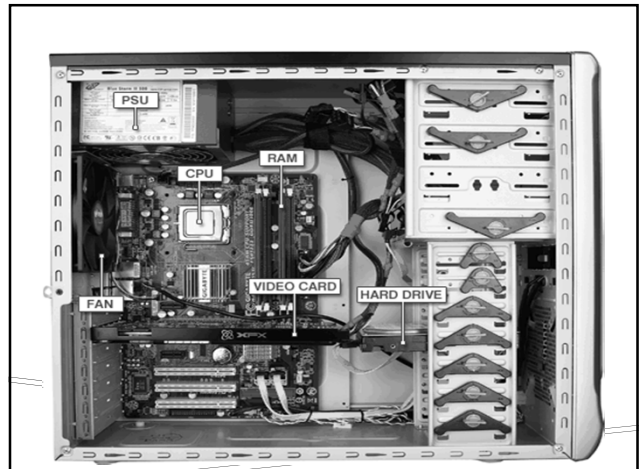
- ▶ Brain of computer
- ▶ Executes any calculation or process made by the computer
- ▶ Uses 1 or 0 for all calculations known as bits



CPU

- ▶ The speed of the CPU is measured in Giga Hertz (GHz)
- ▶ The higher the hertz, the faster and more expensive the computer
- ▶ Intel CPU ranges from Intel Core i3 to i7
- ▶ For normal word processing and internet browsing do not need the speed
- ▶ With the speed of CPU must look at memory
- ▶ Cache and RAM

- ▶ Screen
- ▶ What you shut in the mosquito season
- ▶ Byte
- ▶ What mosquitoes do
- ▶ Bit
- ▶ What mosquitoes did
- ▶ Mega Byte
- ▶ What mosquitoes at the dam do



MEMORY

- ▶ Internal cache on CPU – chips that store small amount of data recently used by CPU
- ▶ External cache on mother board – also data recently used by the CPU
- ▶ RAM – random access memory
- ▶ Lost if computer is switched off
- ▶ CPU can access info at 3 nanoseconds
- ▶ RAM at 100ns – so much slower
- ▶ There for have cache close to CPU
- ▶ This helps computer operate efficiently

MEMORY

- ▶ Hard Drive is the primary device that a computer uses to store information
- ▶ The amount of data a hard drive and RAM can store is measured in bytes
- ▶ A Byte is 8 bits.
- ▶ A Megabyte is 1,048,576 bytes or 1,024 Kilobytes
 - ▶ 873 pages of plaintext (1,200 characters)
 - ▶ 4 books (200 pages or 240,000 characters)

MEMORY

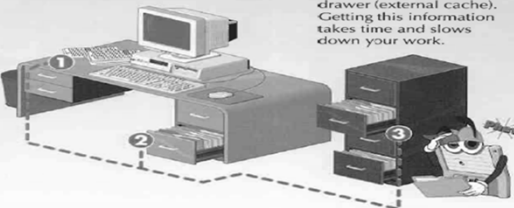
Memory cache is similar to working with documents in your office.

1 When you need information, you first look through the documents on your desk (internal cache). This is the fastest way to get information.

2 If the information you need is not on your desk, you next look through the documents in your desk drawer (external cache). Getting this information takes time and slows down your work.

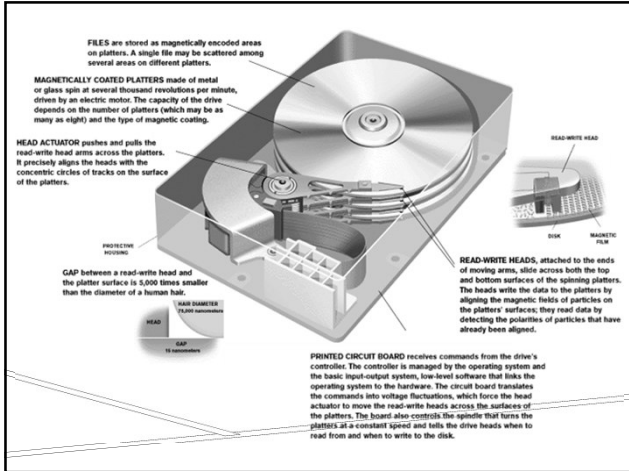
3 If the information you need is not in your desk drawer, you look in the filing cabinet (main memory). This slows down your work dramatically.

Note: Working without memory cache would be similar to going to the filing cabinet each time you need a document.



MEMORY

- ▶ A Gigabyte is 1,073,741,824 (2³⁰) bytes. 1,024 Megabytes, or 1,048,576 Kilobytes.
 - ▶ 894,784 pages of plaintext (1,200 characters)
 - ▶ 4,473 books (200 pages or 240,000 characters)
 - ▶ 341 digital pictures (with 3MB average file size)
 - ▶ 256 MP3 audio files (with 4MB average file size)
 - ▶ 1 650MB CD



STORAGE

- ▶ DVD
- ▶ CD
- ▶ USB STICK
- ▶ EXTERNAL HARD DRIVE

- ▶ Dot Matrix
- ▶ Oom Jannie matrix's wife
- ▶ Laptop
- ▶ Where the cat sleeps
- ▶ Software
- ▶ Plastic knives and forks you get at KFC
- ▶ Hardware
- ▶ Real Stainless steel knives and forks from Checkers

- ▶ Chip
- ▶ A bar snack

- ▶ Micro Chip
- ▶ What's left in the bag after you have eaten the chips

- ▶ Modem
- ▶ What you did to the lawns

PRINTERS ETC

- ▶ Separate or all in one
- ▶ Buying or leasing
- ▶ Colour
- ▶ Fax to email

SOFTWARE

- ▶ Operating System
- ▶ Internet
- ▶ Email
- ▶ Word processing
- ▶ Bookkeeping

- ▶ Mouse
- ▶ What eats the grain in the shed

- ▶ Mouse Pad
- ▶ Where the mouse takes the grain it does not eat

- ▶ Mainframe
- ▶ What holds the shed up

- ▶ Web
- ▶ What spiders make

- ▶ Web site
- ▶ The shed (or under the verandah)

- ▶ Cursor
- ▶ The old bloke what swears a lot

OPERATING SYSTEM

- ▶ Windows or Linux or Mac
- ▶ Network
 - ▶ wires
 - ▶ Wireless
- ▶ Window 7

INTERNET

- ▶ Internet Explorer, Chrome, Firefox , etc
- ▶ How to connect
 - ▶ Modem and telephone line - very slow
 - ▶ 3g
 - ▶ Speed Stick – speeds 7.2 Mbps down load and 5.76 Mbps up load
 - ▶ 2 GB downloads 500 songs or 3 movies

- ▶ Search Engine
- ▶ What you do when the bakkie won't go
- ▶ Yahoo
- ▶ What you say when the bakkie does go
- ▶ Upgrade
- ▶ A steep hill

Cell C	Vodacom	MTN
2 GB data p/m	1 GB	2 GB
R 149 p/m	R 285 p/m	R 389 p/m
Out of bundle tariff R0.39/MB	Out of bundle rate R 0.28/mb	Out of bundle R 0.02/1kb

Telkom ADSL	Neotel	Telkom 8ta
384 kbps – R 152.00 p/m	2 GB	1 GB p/m
512 kbps – R 326.00 p/m	R 299 p/m	
4096 kbps – R 413.00 p/m	2 year contract	R 250.00

- Server
- ▶ The person at the pub that brings out the lunch
 - ▶ Mail Server
 - ▶ The bloke at the pub that brings out the lunch
 - ▶ User
 - ▶ The neighbour that keeps borrowing things

- ### INTERNET
- ▶ Cellphone
 - ▶ Expensive R 2/mb
 - ▶ Back Up
 - ▶ Brilliant online book about the internet & websites and cookies etc at <http://www.20thingsilearned.com> (works best in Google Chrome)

- ### EMAIL
- ▶ Outlook Express, Outlook, etc
 - ▶ Much more than just email
 - ▶ Calendar
 - ▶ Reminders
 - ▶ Contacts
 - ▶ Sink with cellphone
 - ▶ Combination of letter, telephone and fax
 - ▶ Signatures

- ▶ Network
- ▶ When you have to repair your fishing net

- ▶ Internet
- ▶ Complicated fish net repair

- ▶ Online
- ▶ When fish is hooked

- ▶ Off line
- ▶ When fish is lost

- ### BOOKKEEPING
- ▶ Lexpro, AJS, WinLaw, etc
 - ▶ No Fuss and No Frills Just Trust ?????
 - ▶ Must have separate Business and Trust Books
 - ▶ Pastel

- ### WORD PROCESSING
- ▶ Word, Wordperfect, Open Office, etc
 - ▶ Create letterheads
 - ▶ Greeting Cards
 - ▶ Business Cards
 - ▶ Secretaries
 - ▶ PDF
 - ▶ <http://www.dopdf.com/download.php>

- ### PROTECTION
- ▶ Antivirus
 - ▶ Norton
 - ▶ McAfee
 - ▶ AVG
 - ▶ Backup
 - ▶ Separate Computers
 - ▶ External Hard Drive
 - ▶ Correct Procedure
 - ▶ Restore
 - ▶ Email Backup

HOW IT CAN MAKE YOUR LIVE EASIER

- ▶ [Jutastat](#)
- ▶ [butterworths](#)
- ▶ [constitutional court](#)
- ▶ [saflii](#)
- ▶ [tech4law](#)
- ▶ [Dept of justice](#)
- ▶ [Green Gazette](#)

HOW IT CAN MAKE YOUR LIVE EASIER

- ▶ None legal IT

Google™

HOW IT CAN MAKE YOUR LIVE EASIER

- ▶ **Specific Software**
 - ▶ Litsys
 - ▶ Ghostconvey
 - ▶ Wills and Estates
 - ▶ Templates

SEARCH

- ▶ A colleague tells you about a an important case for divorces.
- ▶ All she can remember is that the case is Van Dyk v Van Dyk and it was heard in 2009.
- ▶ You do not have Jutastat or Butterworths

SEARCH

- ▶ 1st - Van Dyk divorce
- ▶ 2nd - Narrowing the search for South African sites.
- ▶ 3rd - Van Dyk egskeiding.
- ▶ Use the word "Court "

CLIENTS

- ▶ Blogs
 - ▶ <http://newmcrules.blogspot.com/2010/12/ever-changing-legal-field.html>
- ▶ Facebook
 - ▶ <http://www.facebook.com/group.php?gid=118904198150512>
- ▶ Website
 - ▶ <http://www.barnards.co.za/>
 - ▶ <http://www.bluevoda.com/>
- ▶ SMS
 - ▶ Contact
 - ▶ Collections

CLOUDS

- ▶ Amazon allows customers to rent computer time and software, as well as storage space.
- ▶ Fees are based on usage
- ▶ Backup features
- ▶ Big Problem is that data is beyond control

OTHER HELP

- ▶ Business Plan
- ▶ http://www.bplans.com/law_firm_business_plan/executive_summary_fc.cfm

- ▶ Slides at
- ▶ www.Barnards.co.za

