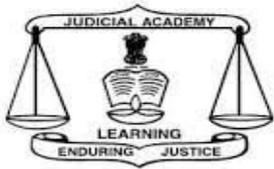


INTRODUCTION TO COMPUTER



A computer is an electronic device that:

Accepts input

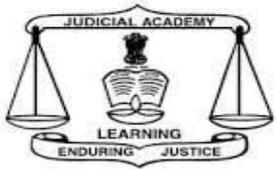
Processes data

Produces output

Stores information for future use

Input → Process → Output → Storage

Main Components of a Computer



(a) Hardware

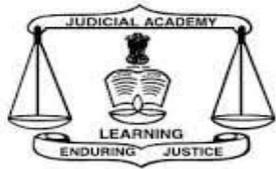
Physical parts you can see and touch.

Input Devices: Keyboard, Mouse, Scanner

Output Devices: Monitor, Printer, Speaker

Processing Device: CPU

Storage Devices: Hard disk, Pen drive, CD/DVD

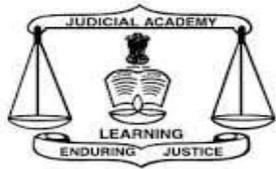


Software:

- Programs that tell the computer what to do.
- System Software: Windows, Linux, macOS
- Application Software: MS Word, Excel, Browser etc.

• Central Processing Unit

- **The brain of the computer**
 - ALU (Arithmetic Logic Unit) – Performs calculations
 - Control Unit (CU) – Controls all operations
 - Registers – Temporary high-speed memory

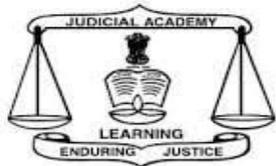


Operating System:

- Acts as an interface between user and hardware.

Examples:

- Windows
- Linux
- macOS
- Android



VC (Video Conferencing) Equipment

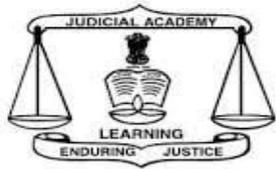
- ♦ Video Conferencing (VC) allows people at different locations to see, hear, and talk to each other in real time using computers and network connectivity. VC equipment consists of camera, microphone, speakers, display, codec, network and software used for real-time audio-video communication.

→ Main VC Equipment-

Camera- Captures live video of participants

Types:

- PTZ Camera (Pan–Tilt–Zoom) – commonly used in courts.
- Web Camera – basic use
- Should support HD video for clarity

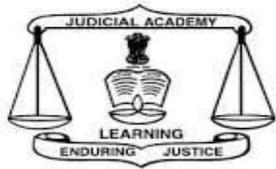


2. Microphone-

- ◆ Captures voice clearly

- **Types:**

- Table microphone.
- Boundary microphone.
- Wireless microphone.
- Noise cancellation is important for courtrooms.



3. Speakers-

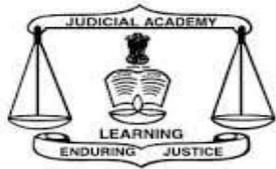
- Output audio from the remote location
- Must be loud and clear to avoid echo
- Often integrated with VC systems

4. Display Device-

- Shows the video of remote participants

Examples-

- LED/LCD TV.
- Projector.
- Computer Monitor.



5. Codec (Encoder–Decoder)-

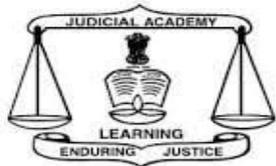
- Heart of the VC system.
- Converts audio/video into digital signals and back
- Examples: Poly, Cisco VC codecs

6. Computer / VC Console

- Controls VC operations

Used to-

- Start/End calls
- Share documents
- Control camera and audio



7. Network Equipment

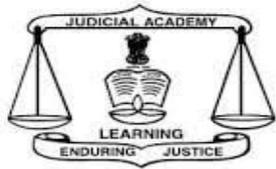
- Internet connection (Broadband / Leased Line)
- Router
- Switch
- Firewall
- Stable bandwidth is critical for smooth VC

8. VC Software / Platform

- Enables communication

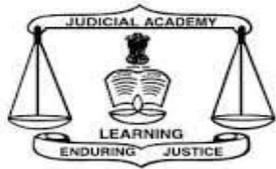
Examples-

- **Cisco Webex**
- NIC VC solution
- Jitsi, Zoom, Meet etc.



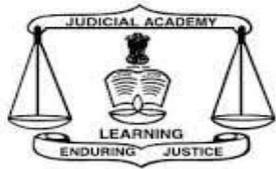
Importance of VC Equipment in Courts

- Virtual hearings
- Jail-to-court VC
- Witness examination
- Training and meetings
- Saves time and cost



What is Internet?

- The Internet is a global network of interconnected computers and servers that allows users to share information worldwide.
- Uses of Internet
 - ✓ Email and communication
 - ✓ Video conferencing
 - ✓ Online filing (eCourts)
 - ✓ Information search
 - ✓ Online payments
 - ✓ Cloud storage

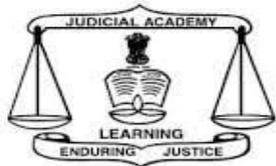


Common Internet Services-

- ✓ Email and communication
- ✓ Email
- ✓ Video Conferencing
- ✓ FTP (File Transfer)
- ✓ Cloud services

Internet Connection Types-

- ✓ Broadband
- ✓ Fiber
- ✓ Mobile data (4G/5G)
- ✓ Leased line (used in courts)- **DEVICES-** Modem &
✓ ROUTER

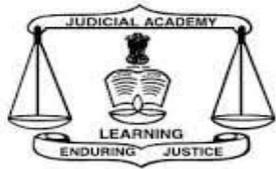


- LAN (Local Area Network)

- A LAN is a network that connects computers within a limited area, such as:
 - ✓ Court complex
 - ✓ Office
 - ✓ Building

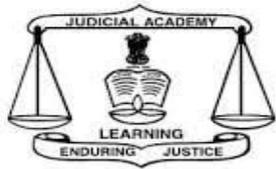
Uses of LAN

- ✓ Sharing files.
- ✓ Accessing court servers
- ✓ Internal communication
- ✓ Using shared Printers, Scanners and other LAN enabled hardware resources.



Components of LAN-

- ✓ Computers / Servers
- ✓ Network cables (LAN cable)
- ✓ Switch
- ✓ Router
- ✓ Network Interface Card (NIC)



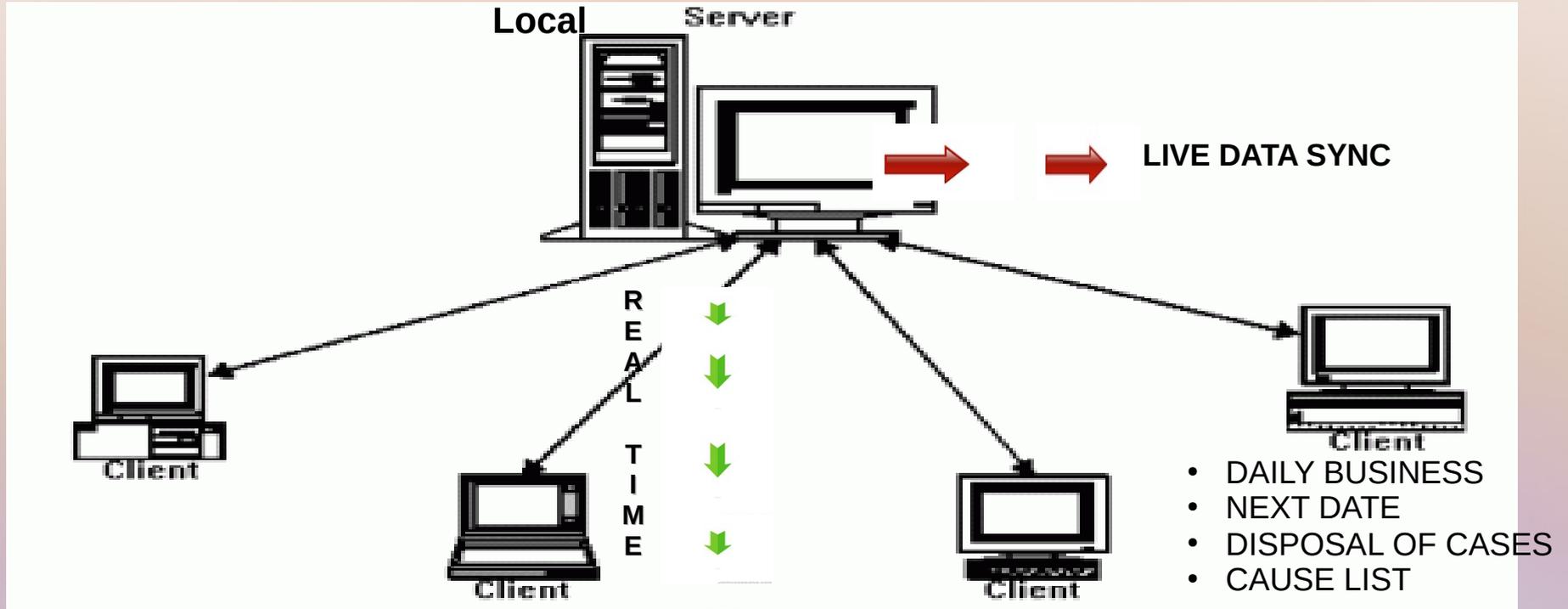
Difference Between Internet and LAN

INTERNET	LAN
Global network	Local network
Covers large area	Covers small area
Public network	Private network
Slower than LAN	Faster within network
Requires ISP	No ISP needed

Data Replication in CIS workflow

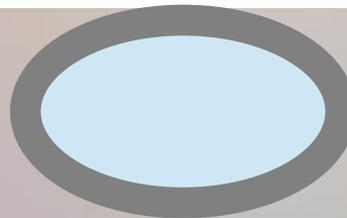
COURTS COMPUTERIZATION WORKFLOW

FOR ANY COURT COMPLEX



Orders-
Judgments-
Processes &
Other pdf documents

MANUAL →



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