

## Search and Seizure.

Pre search  
activities

on scene activities

- |                                |  |
|--------------------------------|--|
| 1. Warrant preparation         | 2. Seizing the evidence                |
| 2. Plan preparation            | 3. Scene processing                    |
| 3. Preparing toolkit           | 4. Locating evidence                   |
| 4. Traditional equipment       | 5. Seizing & documentation of evidence |
| 5. Computer specific equipment | 6. Bagging & tagging                   |
|                                | 7. Transportation                      |

### 1. Warrant Preparation application.

- Intelligence gathering is critical to the development of a comprehensive warrant.
- When available, operating systems, storage devices & hardware ~~for~~ specifications should be ~~attached~~ included in warrant application.
- So such articulations ensure that searches are tailored to the particulars of that case at hand & that evidence collected within the parameters of warrant.
- Warrant app<sup>n</sup> → specialists → Magistrate so it should include the relevant details. In addition, all equipment, media & peripherals should be added.
- No-knock warrant should be get for urgent circumstances.
- With the vulnerability of computer data, investigators should be able to present a case to magistrate for rapid entry if the suspect has prior

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knowledge of search or if he/she has technical expertise to destroy evidence.

## 2. Plan Preparation

- The plan should follow 5-paragraph military order SMEAC.

**Situation** : clearly define who and what of investigation  
no. of individuals & equipment computer  
types of equipment.  
geographical location

**Mission** : what is the optimal case scenario?  
What do investigators want to happen?

**Execution** : How will the mission accomplished

**Avenues of approach & escape** : Case supervisors should provide detailed maps to investigators prior to arriving the scene which include location of doors, elevators, obstacles, parking, suspect equipments etc.

**Comm<sup>n</sup>** : How will investigator communicate at scene?  
" " " " to dept?  
Who is primary point of contact?

## 3. Preparing toolkit : Computer-specific equipment & materials.

### ① Multiple boot disks

used to avoid self destructive programs employed by the suspect & to minimize change to a suspect drive  
i.e. during routine boot process, disk space is reconfigured & files may be overwritten.



### ii) FTK Images :

Program allows for the acquisition of physical device images, creation of simultaneous multiple image from a single source.

### iii) Registry Viewer.

A utility which enables user to view windows registry files & generate reports.

### iv) Password Recovery toolkit (PRTK)

- This programme provides for the discovery and identification of encrypted files.

- This programme provides locksmithing tools for a variety of popular software like microsoft, excel etc.

### v) Distributed Network Attack (DNA) - 50 client

- This programme extends decryption capabilities beyond a single computer by using the distributed power of multiple computers across a network to decrypt files and recover passwords.

### vi) Wipe driver - 3.0

- Programme designed to forensically wipe drives.  
- It used to remove/wipe criminal contraband or evidence for reuse.

## - Seizure

- Legal procedure of search and seizure comes under CrPc 93.
- There is 2 teams responsible for search & seizure.
  - i) Physical search team
    - depends upon size and volume and multiplicity of machines will dictate no. of individuals of physical team.
    - Absolute aim of this team is to identify & mark any and all potential evidence.
    - They are not responsible for collection.

## ii) Seizure team

- they are responsible for bagging & logging
- Because of the fragility of evidence experienced cyber investigators should be there.
- They are present at scene throughout whole processing.
- This team composed of seasoned investigator and a computer expert.

- The Investigators should read warrant ~~that~~ thoroughly with its specification & limitations prior to its execution.
- They should maintain a copy of warrant throughout investigation.
- An item which is found appears to contain criminal evidence but it is not included in warrant. If seizure should only occur if the original warrant is formally amended.



- once the determination is made that evidence may be seized & collection process initiated with imaging (duplicated byte for byte) of drives onto a clean media.
- It is essential that this process be conducted on all harddrives prior to analysis / removal with tested forensic software packages or with clean boot disks.
- Boot disks should minimally contain any & all system drivers, applicable software, virus protection & write blocking programme.
- Verification of such images should also be conducted ~~on all hard~~ prior to evidence removal as forensic analysis.
- Secured computers which are on should not be turned off until the scene is photographed & properly documented.
- Current state of computer & monitor should be carefully noted prior to powering down.
- Sometimes, all open documents should copying to an external storage device.