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Lawful Interception: The bigger picture

Addressing the issues



The world of Lawful Interception

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A colorful and challenging landscape



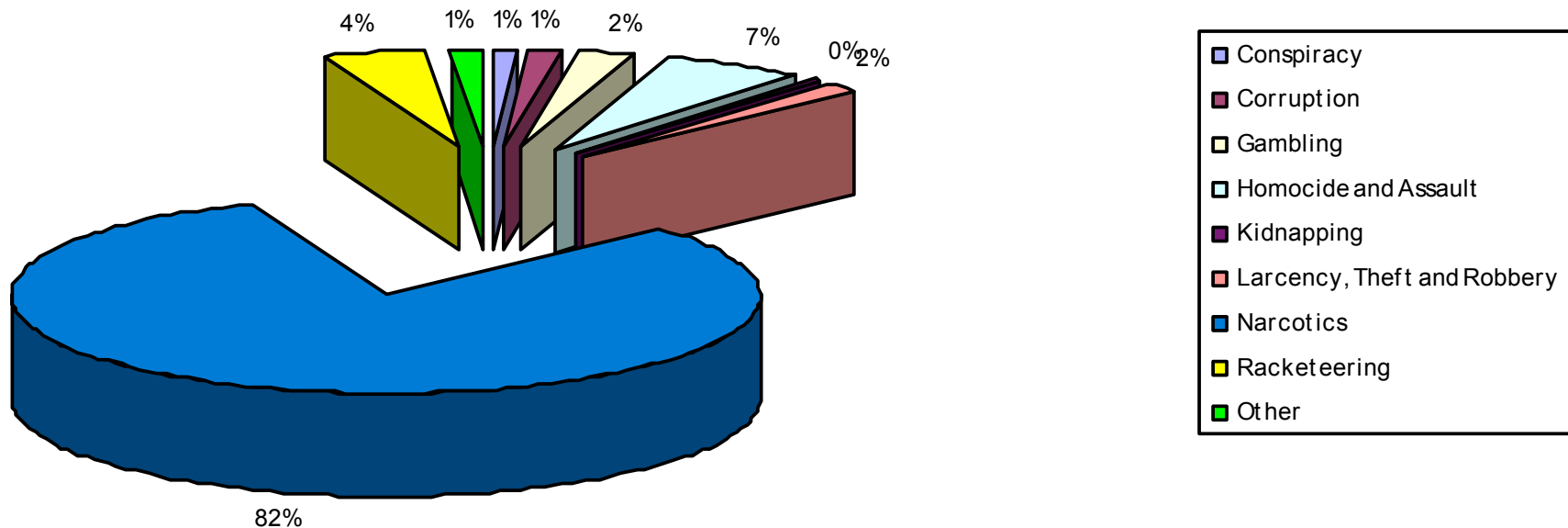
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Lawful Interception In Practice





US: Major offenses for which court-authorized intercepts were granted



LI in practice: Narcotics

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ARREST IN DRUGS IMPORTATION

UK - Interception of a highly professional international group involved in trafficking Class A drugs revealed the intention to import a large consignment. As the plan developed it identified individuals recruited to transport and receive the drugs. The intercepted calls were in coded language which could have been attributed to legitimate activity. The group evidently had a lot of knowledge of covert techniques, but not enough understanding of how they are used to provide effective security. Continued interception revealed new timings for the importation and travel arrangements for those involved. This enabled officers to observe the **collection of the drugs, arrest two of the principals, and seize 20 kilograms of heroin, over 20 firearms, and over 1000 rounds of ammunition.**

- Interception calls
- Calls were coded
- Police could intercept new timings as they continued with interception
- Result: arrest and seizing of drugs and firearms

LI in practice: Racketeering

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- Interception was used for 'plea bargain'
- Conviction of all 5 New York mafia heads

CONVICTION OF MAFIA HEADS

NY - It was by using intercept in these ways that the US authorities – much helped by the ability to 'plea bargain' there – have recently been able, for the first time, to **convict the heads of all 5 New York mafia families.**

LI in practice: Kidnapping

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- Kidnap over a debt
- Interception confirmed that the hostage was alive
- Arrest of all involved and recovery of the ransom

ARREST IN KIDNAP

UK- In 2007 a person contacted police reporting the kidnap of a friend over a debt. A third party was apparently negotiating in isolation and refusing to cooperate with the police. A further party was also negotiating without cooperating fully with the police. The situation was further complicated by direction from members of the criminal group abroad. Interception over several days confirmed that the hostage, although injured, was alive. It allowed police to control the developing situation to the point where a significant sum of money was paid and the hostage released. This triggered the **arrest of all involved in the kidnap, and the recovery of the ransom.**



NO LEAD IN EXTORTION

NL - There was a case of extortion, where the criminals used a foreign free e-mail address. The police wanted to intercept the e-mails in which the criminals asked for the random, but they encountered two problems:

1. **Legal problem:** The police needs to intercept persons, not IP-addresses, so first the person need to be known.
2. **Technical problem:** In order to intercept the e-mail you need to intercept the backbone -> how do you find the specific e-mail in all the traffic?

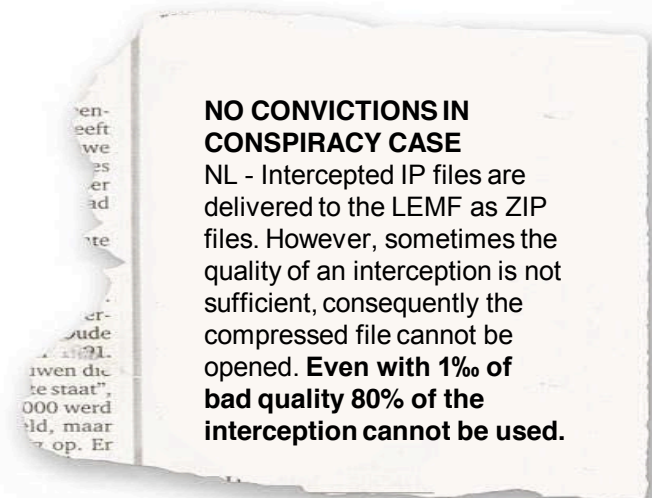
- Criminals used a foreign e-mail address
- Technical problem: interception of the backbone
- Legal problem: interception of identity

LI in practice: Conspiracy

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- IP files were compressed.
- File could not be used, as 1‰ was bad quality, therefore 80% could not be used.





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Addressing the Issues

macro environment





- VoIP interception: CSPs have packet switched, and LEMF asks for circuit-switched delivery.
- **Consequences:**
- CSP has to invest in “old” technology.

Specification issues

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- Specification is issued, and solution is developed afterwards.
- **Consequences:**
- When a warrant is issued, CSPs cannot react immediately.



- CSPs are waiting for the law to be enforced.
- **Consequences:**
- CSPs are not ready when a warrant for interception is granted.

Operational Issues

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- CSP is ready for the connection to the LEMF monitoring centre, but the LEMF has not installed their monitoring facilities.
- **Consequences:**
- Intercepted traffic cannot be delivered to the LEMF and has therefore no value.

Solving the issues

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Look ahead

Check future developments

Keep up with the trend

COMMUNICATE

COOPERATE



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Addressing the issues

meso environment





- Where people work, mistakes are made.
- **Consequences:**
- Entering the wrong number or date lead to no interception of the suspect or the intercepted data is not valid in court.

Technical Developments

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- In the world of telecom, technology used today is out tomorrow. E.g. changing from radius to DHCP server.
- **Consequences:**
- LI solution needs to be adaptable to network changes, so there are no consequences for an current interception.

Specification Developments

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- As technology develops, specifications develop as well. ETSI has published new versions for ETSI 232.
- **Consequences:**
- LI solution needs to be adaptable to specification changes, so there are no consequences for an current interception.



- Data Retention is the latest legal development in many countries. Integration of the DR solution with existing LI solutions, can save you a lot of time and money.
- **Consequences:**
- Not being able to integrate new legal demands into your system, will mean that you need to start at the beginning with each new law.

Operational Developments

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- Is your system ready for updates? Software updates can sometimes compromise a current interception.
- **Consequences:**
- The interception is deleted or changed and therefore cannot be used to intercept suspects or cannot be used as evidence in court.



- **Errors**
- Automatisatisation of processes, you only need to enter the warrant and the solution takes care of the provisioning systems.
- **Developments**
- Modular and flexible solution, adaptable to new requirements.



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Conclusion



The Bigger Picture

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- There is a lot going on in Lawful Interception.
- Authorities are struggling to keep up with technical developments, but by cooperating with CSPs the struggle can be overcome.
- Operators are reluctant to invest in LI, but there is no escape. However, cooperation with the authorities can save time and money.

How do you solve these issues?

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