

# Blocking the Internet



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# Ban or block?

**IP ban refers to incoming connections and it is usually decided by the end user.**

**IP block refers to incoming and outgoing connection and it is usually decided by a third party.**





# Blocking

- **Static methods**

**IP blocking** = blocking connections from a specific range of IP addresses that are considered undesirable or hostile.

**DNS Poisoning** = returning different IPs based on the caller IP.

**DNS blocking** = replying unknown DNS to a specific range of caller IPs.

**Portal censorship** = making a site invisible to people that don't know it, by taking off major portals and searching machines databases.

- **Dynamic methods**

**URL filtering** = scanning URLs for specific keywords in order to block the access.

**Packet filtering** = scanning the TCP packet to terminate it based on specific keywords.

- **Attack methods**

**Network disconnection** = cutting off all the routers by either software or hardware means.

**DOS attacks** = DOS attacks against a network to prevent access to Internet.

# DNS manipulation is not even solving the problem

- **It can be avoided using the IP address.**
- **A different domain name pointing to the same IP can be established fast.**
- **Encourages the underground shift of the site.**
- **Fragments the DNS, undermining the structure of the Internet itself, making it less consistent.**
- **Affects harmless sub-domains.**



# Why is an IP banned?

## **Security reasons**

Used by firewalls and antimalware applications

## **Ethical or moral reasons**

Used by parental control applications

## **Personal reasons**

Used in communication or social applications





# Why is an IP or DNS blocked?

## **Security reasons (Technical - temporary)**

Used to prevent or to counter an attack

## **Commercial reasons (Commercial - temporary)**

Used to prevent the access to a specific content for commercial or competition reasons

## **Believes-related reasons (Moral, Religious, Ethical - permanent)**

Used to permanently cut access to a specific content that may harm the common sense, believes, etc.

## **Political reasons (Political - permanent or opportunistic)**

Used to prevent the spreading of certain political ideas

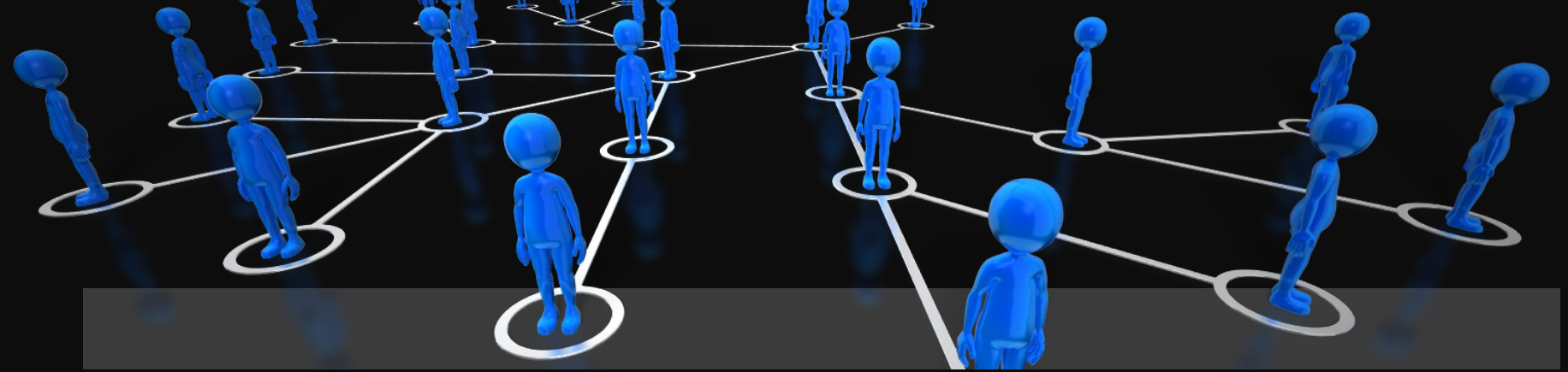
# Harmful blocking

- Is permanent or opportunistic.
- Is justified by technical security, national security, ethical, moral or religious reasons.
- The real reason is political or commercial.

**Harmful blocking should be banned by international legislation.**

**It is very difficult to define accurately and so it is better to block for reasons other than IT security ones.**





Because there is an alternative  
to blocking.

**During peace times, yes. International cooperation to accurately  
define what is harmful and block the sources of harm.**

**During war times, no.**



**You!**

**Thank**

