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Sanctions and the global Internet

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Twitter: @farzanehbad

- Impact of sanctions on various Internet operations
- Level of impact on Internet connectivity and the global Internet
- Exploring policy solutions

Objectives



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- Cyber sanctions are imposed after a malicious cyber attack attributed to the attacker - legitimate states response to a foreign cyber attack
- Economic sanctions might not be Internet specific but have unintended consequences

Cyber Sanctions v. Economic Sanctions



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- Economic sanctions: halting trade and financial relations to change a nation state behavior, or to counter terrorism or to stop a turmoil
- Economic sanctions are not new; they have had implications for the Internet since the late 90s
- The implications for the Internet have been increasing in the past decade
- From early on, there have been sanction reliefs, licenses, exemptions, derogations (EU) and regulations

Economic Sanctions Impact: Brief History



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- Draw an Internet value chain
- Understand the impact of sanctions on Internet operations
- Measure the severity of sanctions on end users and Internet layers

Method and Focus



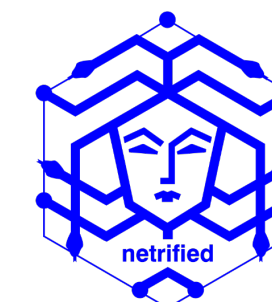
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The EU (and other jurisdictions that have smart sanctions in place) tries to impose sanctions in a way that is proportionate and does not affect third parties.

The European Commission states:

- *“EU sanctions are carefully targeted, and designed to be proportionate to the objectives they seek to achieve. As such, they are aimed at those responsible for policies or actions the EU wants to influence, while reducing as much as possible any unintended consequences.”*

Unintended Consequences



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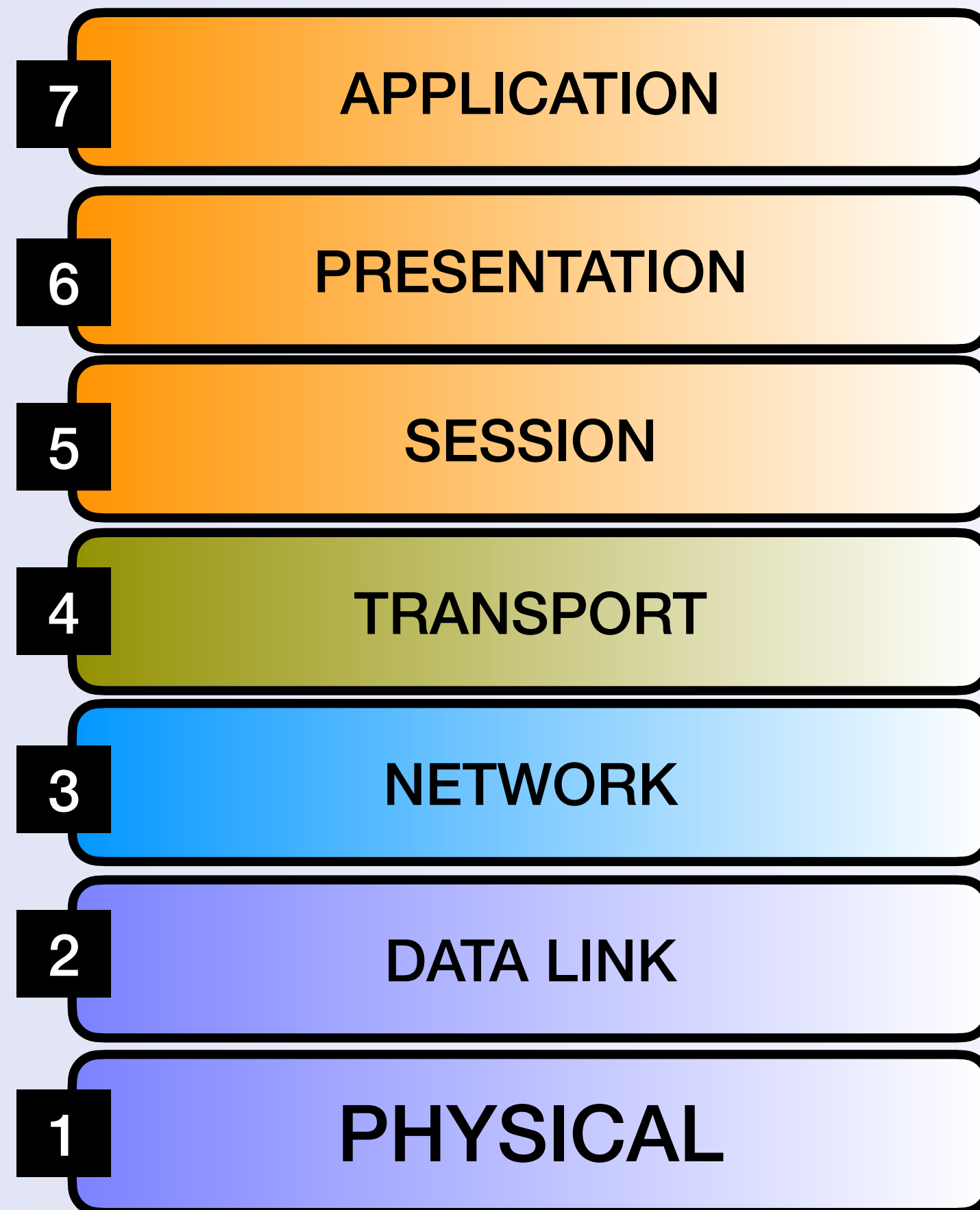
In January 2023, the EU issued a resolution in response to the protests and executions in Iran:

- The resolution called on the **Member States** to commit to “***enabling Iranians to access a free internet in spite of the regime’s massive internet censorship; suggests that the necessary technical and financial resources could be provided through an EU fund;***” and
- “*called on the commission, the EEAS and Member Statesto extend and enhance tangible support for the democratic aspirations of the people of Iran, notably by enhancing support for independent human rights and civil society organisations, as well as independent media platforms, and **by supporting the efforts of like-minded partners to maintain internet connectivity in Iran***”

Accessing a Free Internet



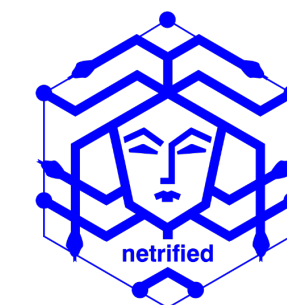
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The OSI Model

- Legal alternative
- Technical alternative
- Impact on third parties
- Implementation complications

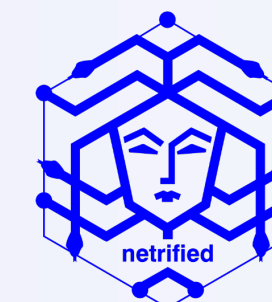
Impact Matrix: Four Indicators



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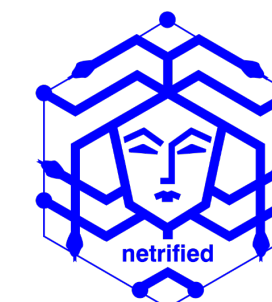
Impact Matrix

Layer	Affected Operations	Affected Actors	Impact Considering Technical Alternatives	Impact Considering Implementation Complications	Impact Considering Legal Alternatives	Impact on Third Parties
Physical	Providing Backbone Infrastructure	Tier 1 Internet Service Providers, Infrastructure providers	Medium	Medium	Medium	Medium
Data Link	Access to the Switch Fabric	Internet Exchange Points, Network Operators	Low	Low	Low	Low
Network	Transit services, Routing, IP inbound transfer, IP registry database, registration of IP addresses	Regional Internet Registries, Content Delivery Networks, Other Network Operators	Severe	Severe	Severe	Severe
Application	Registration and transfer of domain names, Application for new gTLDs, Complications of delegation of Country Code Top Level Domains Root Zone	Domain name registries, registrars, resellers, Internet Corporation for Assigned Names and Numbers	Medium	Medium	Medium	Medium



- RIPE NCC, Sanctioned members from Iran, Syria and Russia and their IP addresses
- Cuba's Internet infrastructure and US embargo

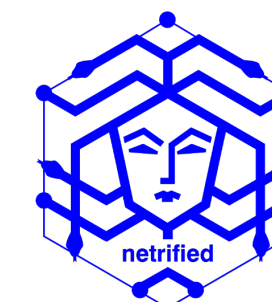
Cases



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1. The sanctioned operators might be the only Internet providers in the affected country
2. The current derogations and general licenses would not apply to the operations necessary for interconnectivity and disproportionately affect third parties connectivity
3. It might become difficult for businesses conducted in environments subject to EU sanctions to remain lawful

Escalation



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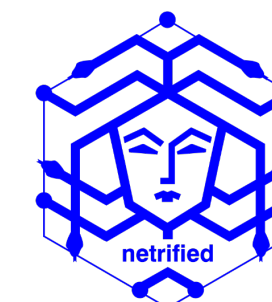
Amending the restrictive measure:

Article 6c

- *‘Article 2 shall not apply to funds or **economic resources that are strictly necessary** for the provision of **electronic communication services** by Union telecommunication operators, for the provision of associated facilities and services **necessary** for the **operation, maintenance and security of such electronic communication services**, in Russia, in Ukraine, in the Union, between Russia and the Union, and between Ukraine and the Union, and for data centre services in the Union.’*

COUNCIL REGULATION (EU) 2022/880 of 3 June 2022 amending Regulation (EU) No 269/2014 concerning restrictive measures in respect of actions undermining or threatening the territorial integrity, sovereignty and independence of Ukraine

An Internet carve-out

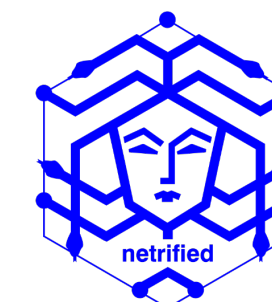


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To preserve global access to the Internet:

- Apply the “Internet carve-out” proportionally, narrowly and consistently
- Make the current “Internet carve-out” applicable to other affected countries such as Iran and Syria
- Consider an “Internet carve-out” in future development and implementation of sanctions regimes
- Consistent and coherent sanction strategy across the EU

Applying the Internet carve-out consistently



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