



DIGITAL MEDUSA

Economic Sanctions and Peering

Prepared for the Central Asia Peering and
Interconnection Forum (2022)

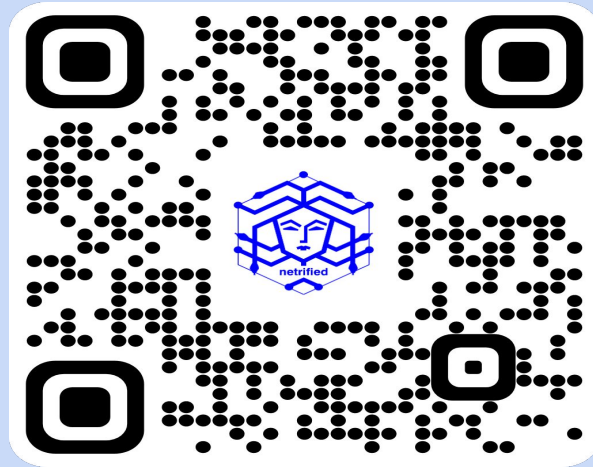
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Before we start!

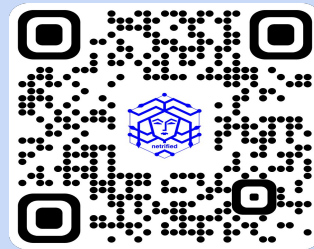
- I might be wrong!
- You might want to add to the issues
- You might want to correct a few things
- You might want to talk about your experience
- Scan the QR code below to give us your feedback



What are economic sanctions?

- There are various types of sanctions that are usually imposed by nation states on specific nation states or certain activities (which includes sanctions on non-state actors). Sanctions include: trade restrictions (or more broadly economic sanctions), travel bans, the freezing of assets and arms embargoes. The focus of this research is strictly economic sanctions.
- Economic sanctions are not new, they have had implications for the Internet since late 90s
- The implications for the Internet have been increasing the past decade
- From early on there have been sanction reliefs, licenses, exemptions and regulations

Send your
feedback!



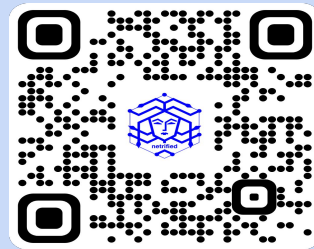
Sanctions timeline



Categorizing the impact

- Effect on Regional Internet Registries services
- Inequitable access to number resources because of indirect consequences of sanctions
- Impact of sanctions on network operators

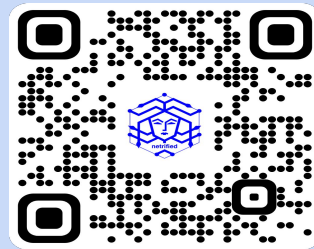
Tell us about
your experience!



Impact on network operators

- Revocation of membership from Internet Exchange Points/De-peering
 - When specific sanctions apply to individuals with formal roles in telecommunication services and network operators (for example, the CEO of a telecom operator), the Internet Exchange Point subject to the sanctions regime in question, will have to terminate the network operator's membership.
 - If the network operator is large and serves smaller network operators, those network operators are also affected. This might affect the quality of access and create latency.
 - Network operators that are sanctioned might carry Internet traffic of other non-sanctioned countries. In such a case, the sanctions (and revocation of membership from IXPs) can affect other network operators based in other countries.
 - When revocation of membership from a well-established Internet Exchange Point happens, the individual members of that exchange point will likely stop peering with the sanctioned network bilaterally.

Know of other affected operations? Tell us!



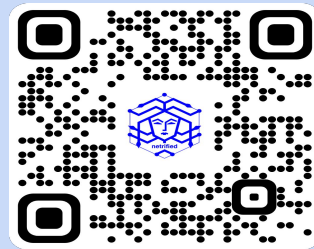
Impact on network operators: Cache servers

A cache server temporarily stores information on a local network, making browsing faster. Cache servers are usually installed in data centers, ISPs, and peering locations.

Trade restrictions, export, and import controls, and sanctions could impact the availability of these servers. There were two reported cases of Google shutting down its caching servers in two Russian ISPs.

Google (reportedly) stated that the reason was a change in legal practices and compliance with sanctions. There are reports about Cache servers being unavailable in Afghanistan as well.

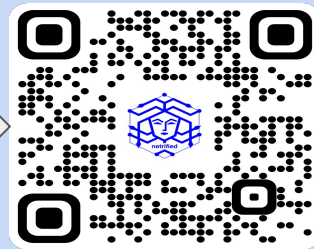
Know of other affected operations? Tell us!



What does this have to do with peering in central Asia?

- Sanction regimes are designed to have transnational effects
- Payment systems: the global financial system is extremely interconnected. Even if not peering with entities in sanctioned countries, but have contacts with (sometimes even unknowingly) their payment systems, the operator and IXes might be impacted
- the so-called sanctioned-locked countries: If operators are surrounded by sanctioned countries, they might not be able to peer with their neighbors
- The ambiguity of sanction regimes creates risk-averse legal practices that would not want to peer with anybody that is sanctioned or has interactions with sanctioned networks

Tell us about
your experience!



But there is hope (a little)

- In the US, the Office of Foreign Assets Control (OFAC) (the sanction enforcement agency), in its FAQ, has clarified that sanctions in case of peering do not apply to the Cuban telecommunication operator. This is because of a specific regulation that authorizes “the exportation, reexportation, directly, or indirectly to Cuba of services incident to the exchange of communications over the Internet.” (31 CFR (Electronic Code of Federal Regulation) § 515.578 Exportation, reexportation, and importation of certain internet-based services; importation of software.)

Hope continues

For peering and transit in the EU, some advocated an “Internet carve-out” that would blunt the effects of sanctions on the Internet. The council adopted an amendment decision and inserted Article 6c, which provides that

“Article 2 (sanctions Russian entities) 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.”

Tell us about your experience

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