



**RIPE NCC**

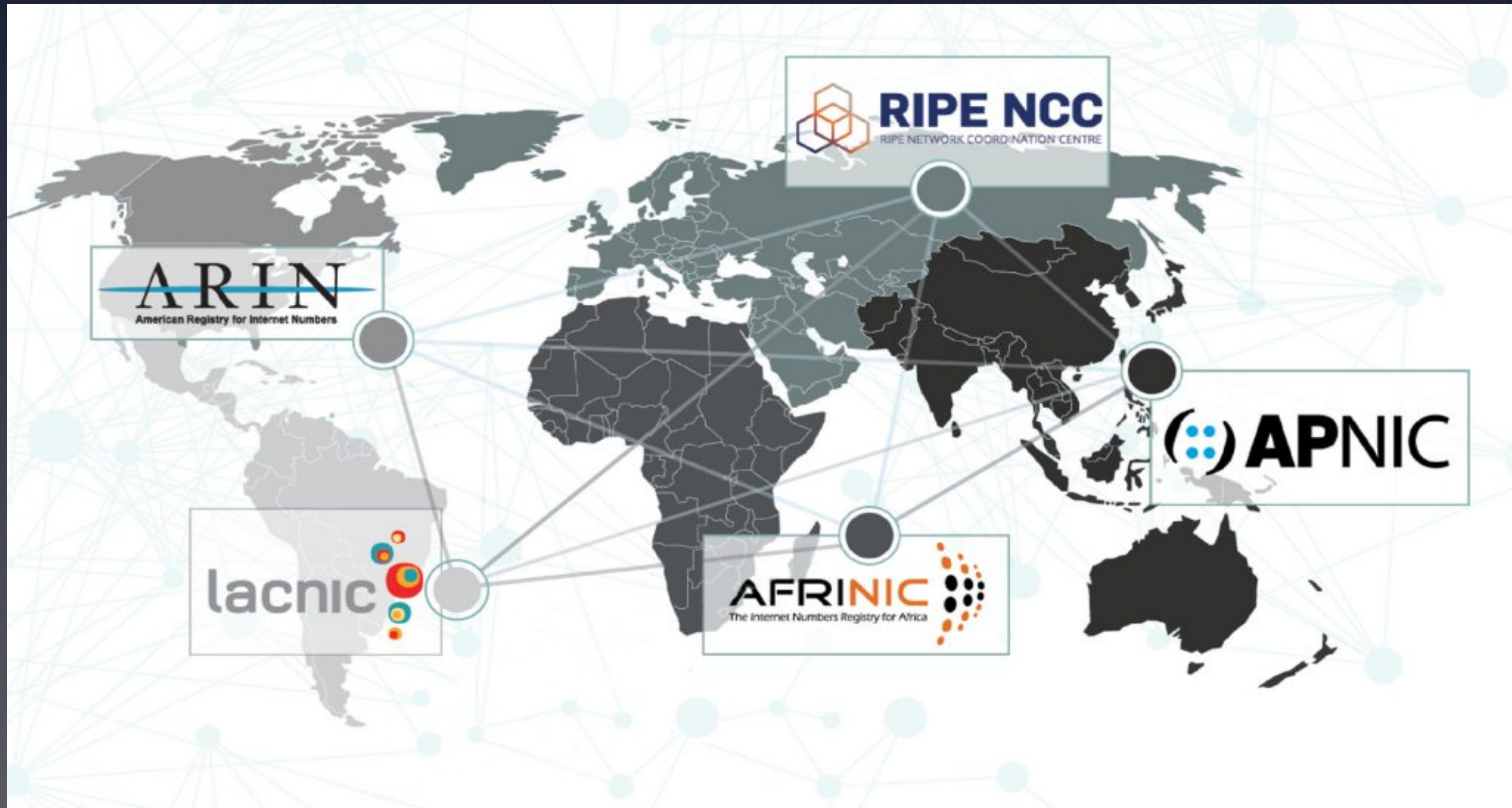
RIPE NETWORK COORDINATION CENTRE

# Internet under sanctions

Then and now

Jelena Ćosić | BalCCon | September 2022

# The five RIRs



# RIPE NCC



- Founded in 1992 as a coordination centre for RIPE community
- Membership based, non-profit organisation located in Amsterdam
- Distributes internet number resources - IP addresses and AS numbers and maintains RIPE database
- Implements policies of RIPE community
- Provides services to both members and non-members



Tech



# Russia-Ukraine: Is internet on verge of break-up?

**By Jane Wakefield**  
Technology reporter

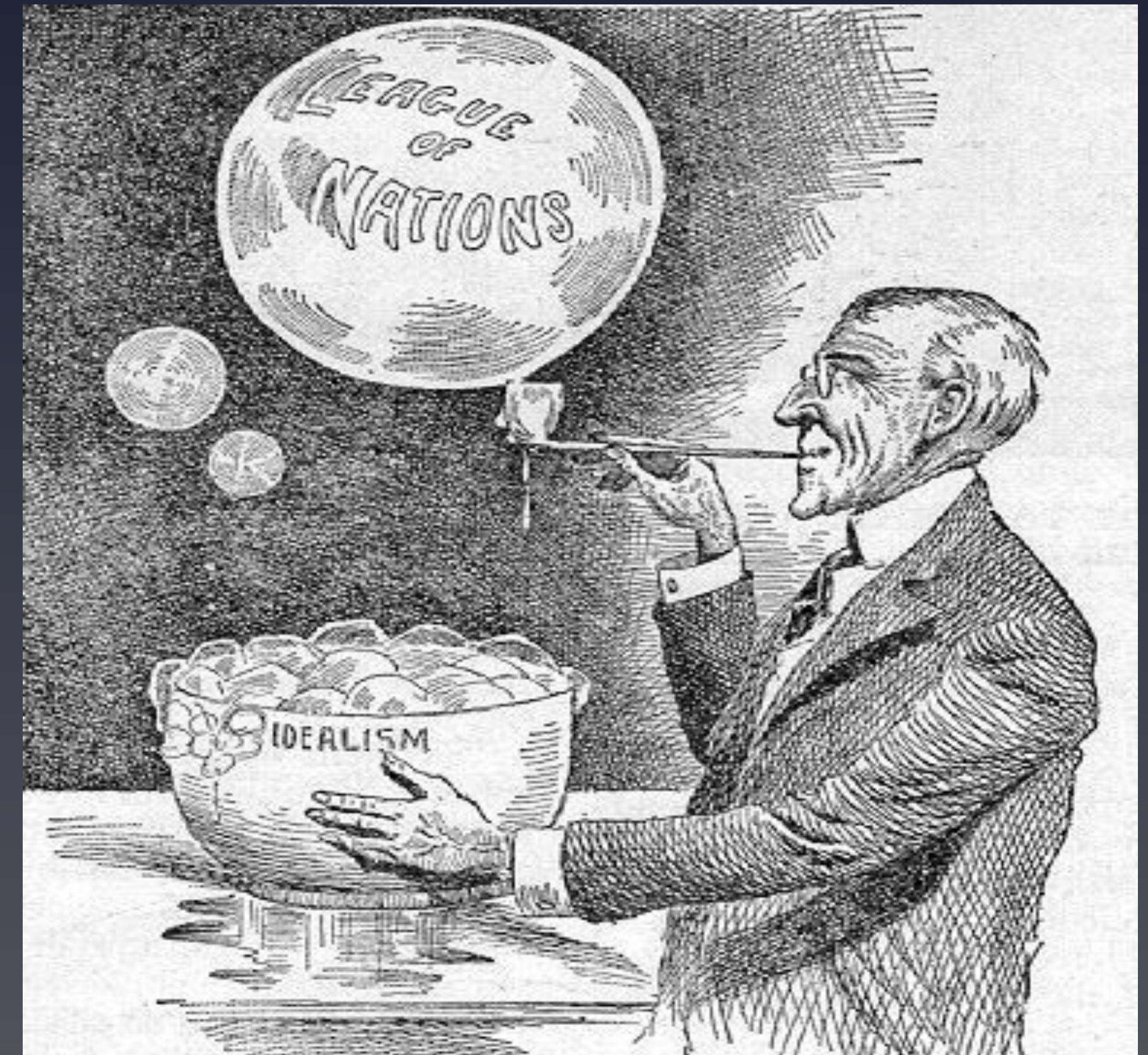
🕒 9 March



# The economic weapon



- Long history of blockades used as a tool of warfare
- I World war and League of Nations (Article 16 of the Covenant)
- Blurred lines between combatants and civilians; war and peace
- II World War - Article 41 and Article 42 of the UN Charter
- Interventions include UN peacekeeping forces in Croatia and in BH during '90s





## Types:

- Economic sanctions
- Diplomatic sanctions
- Military sanctions
- Sport sanctions
- Sanctions on the environment
- Targeted sanctions more effective?





# Yugoslav internet, interrupted



# Bumpy road



- Long way from computer networks of the '70s to IP networks in the late '80s
- Crucial role of academic and research networks
- Federal government provides special fund for participation in Euroka-8/COSINE project
- .yu domain registered in 1989 in Slovenia
- First IP ranges requested in summer 1991; Internet link (TCP/IP over X25) with NIKHEF in Amsterdam established in November

# Sanctions against FRY

- In parallel, Mirjana Tasić - Belgrade BITNET/  
EARN node admin - requests IP ranges from  
InterNIC in July 1991, works to setup DNS  
servers for internet link via Linz until May  
1992
- Sanctions imposed by the UN Security  
Council on the FRY (Serbia and Montenegro)  
prevent Internet access

Date: Wed, 3 Jun 92 09:57:26 CDT  
From: Wilfried Maschtera <Maschtera@EDVZ.UNI-LINZ.AC.AT>  
Reply-To: EARN Board of Directors <EARN-BOD@IRLEARN>  
Subject: Deactivation of line to Belgrade  
To: Yagos Puric <xpmfd01@yubgss21>,  
Svetozar Niketic <xpmfh01@yubgss21>

Dear Jagos and Svetozar,

on June, 2nd 1992 Mr. Axmann from the Ministry for Science and Research called the head of our computing center, Mr. Valach and informed him on the following:

On June, 2nd the Austrian government decided to follow UN resolutions 752 and 757 and to suspend the scientific, technological and cultural cooperation with Yugoslavia (Serbia and Montenegro). As a consequence the Computing Center of the University of Linz has to deactivate the line to Belgrade.

This decision was confirmed when I phoned with Mr. Axmann. On June 3rd I informed the Austrian EARN Director, Prof. Schulz. He gave me the order to follow the directive and to deactivate the line.

I do not agree with this decision but I have to comply with it. Therefore the line will be deactivated temporarily on June 3rd, 4 o'clock pm (16.00). Please note that we do not cancel the line itself. All files destined for a location in Yugoslavia will be saved.

I regret this decision but I ask you to understand that I have to follow this order. We all hope that we can resume the transfer and our good cooperation shortly.

Kind Regards / Wilfried

# A setback



- Academic networks completely cut off from the rest of the connected world
- They started connecting locally using TCP/IP; until 1996 functioned as an isolated network without permanent connection to the Internet
- Smuggling of email: using personal connections at the US universities, Serbian academics found a workaround and started exchanging emails via internet
- Without .yu domain, addressing was quite complicated

# Internet arrives to Serbia



- Relaxation of international sanctions in 1995
- Networking between NGO and academic networks permitted OpenNet project 1995; radio B92 gets a link to Amsterdam
- First permanent Internet connection, but very limited number of users
- In February 1996 University of Belgrade gets connected to the Internet via satellite link
- Users: professors, researches, university and high school students

# Second block of sanctions



- 1998-2000 EU and US imposed sanctions
- Ban on investments, oil trade, assets frozen
- No clear objectives; regime change seen as desired outcome

# Internet during Kosovo conflict



- The only non-censored media during the bombing
- Panic at the BeoNet: fear that the presidential new executive order is going to affect its high-speed Internet connectivity contract with Loral Orion — an american satellite communications company
- Immediate backlash in the local and US media
- Internet stays open!



# **Internet sanctions in 21st century**

# Invasion on Ukraine - Feb/March 2022



## Sanctions against Russia and other major events starting November 2021

Hover over dots for summary of events, or filter list below by sanction type and country

● Sanctions ● No sanctions

◀ Nov 2021 - Jan 2022

US warns of Russia's troop buildup. Countries attempt diplomacy, threaten sanctions.

◀ Feb 4 - 20, 2022

Winter Olympics in Beijing, China

**Feb 21**

Putin orders troops to Ukraine, sanctions start

**Feb 24**

Russia invades Ukraine

**Mar 11**

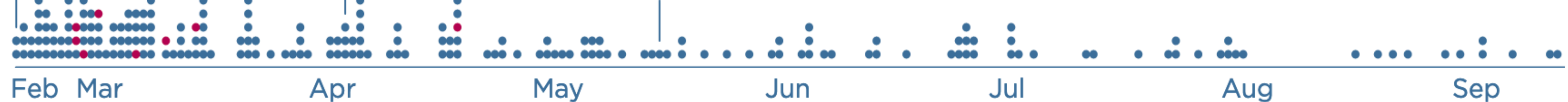
G7, EU announce joint actions

**Apr 6**

G7, EU respond to Russian atrocities in Bucha

**May 18**

Finland, Sweden apply to join NATO





# Invasion on Ukraine - Feb/March 2022



- De-platforming and de-monetisation of Russian state media and official channels by big tech platforms; removal of RT and Sputnik from App Store
- Cogent — a Tier 1 operator — cuts off its Russian customers
- LINX — IXP in London — suspends Megafon (AS 31133) and Rostelecom (AS 12389)
- Ukrainian Minister of Digital Transformation sends letters to big tech companies asking them to stop serving all Russian customers

# Letters to RIPE NCC and ICANN



- These organisations receive following requests to:
  1. Revoke top-level domains (ccTLD) .ru, .su, and .ppp from the DNS root zone
  2. Facilitate a revoking of TSL certificates for sites in these domains
  3. Shut down DNS root servers located Russia
  4. Revoke IP-addresses from Russian members of RIPE NCC
- “An emphatic no”
- Complying with sanctions — freezing Russian resources



# The Internet Sanctions Project

- Open letter signed by dozens of members of technical community
- Lays out principles that should guide Internet sanctions, and recommends formation of a new, minimal, multistakeholder mechanism
- Blocklisting as the best mechanism for sanctioning both IP routes, traffic and domain names

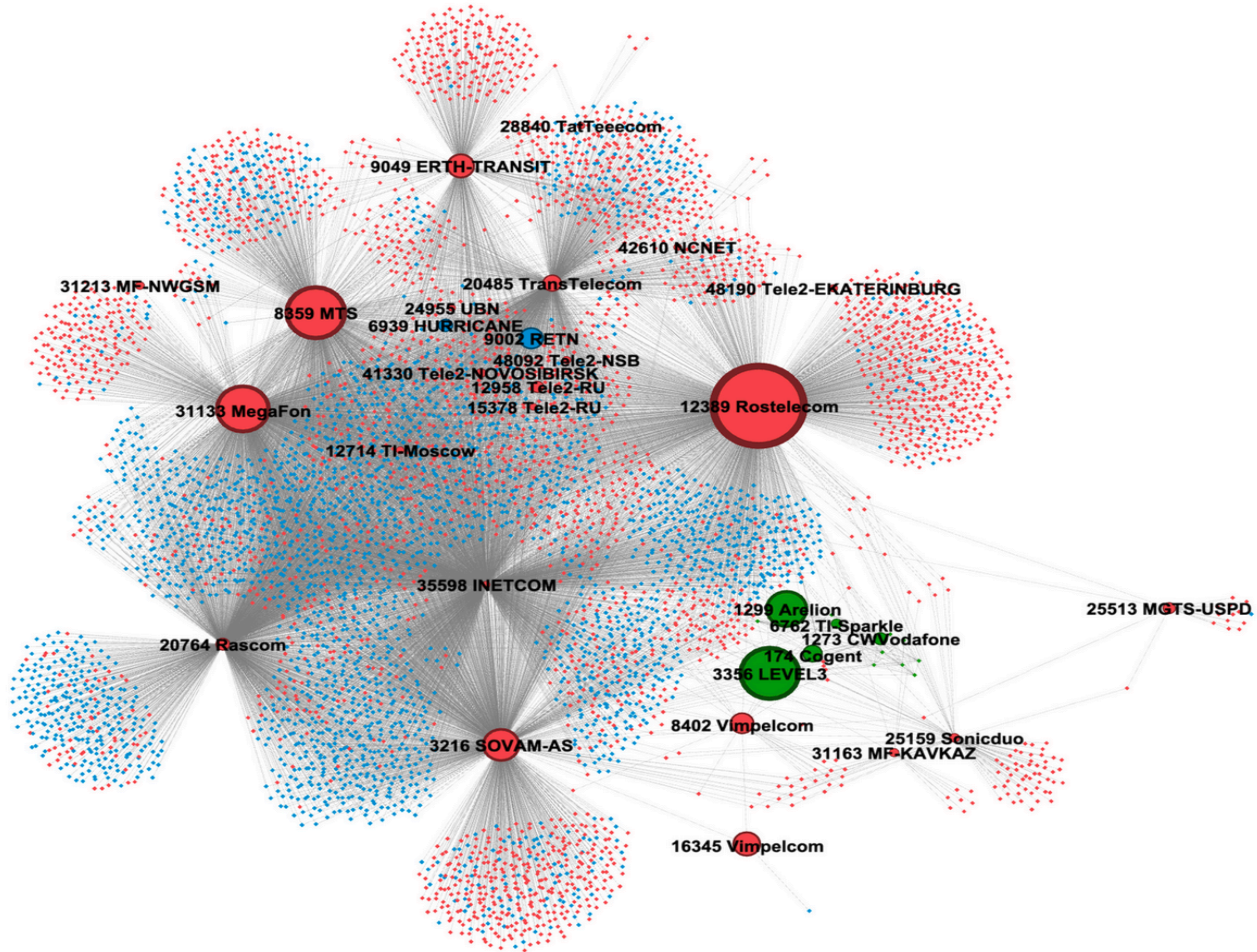


Figure 1: Interconnections between networks in Russia (red nodes) and other networks either inside or outside Russia. Networks outside Russia are blue nodes. Tier1 networks are green nodes.



**Splinternet**



- The Great Firewall of China
- Tight grip on Iranian internet
- GDPR
- RuNet





Treasury Department ✓  
@USTreasury



The U.S. is taking action to support the free flow of information & access to fact-based information to the Iranian people. Updated guidance authorizes tech companies to offer the Iranian people with more options of secure, outside platforms & services.



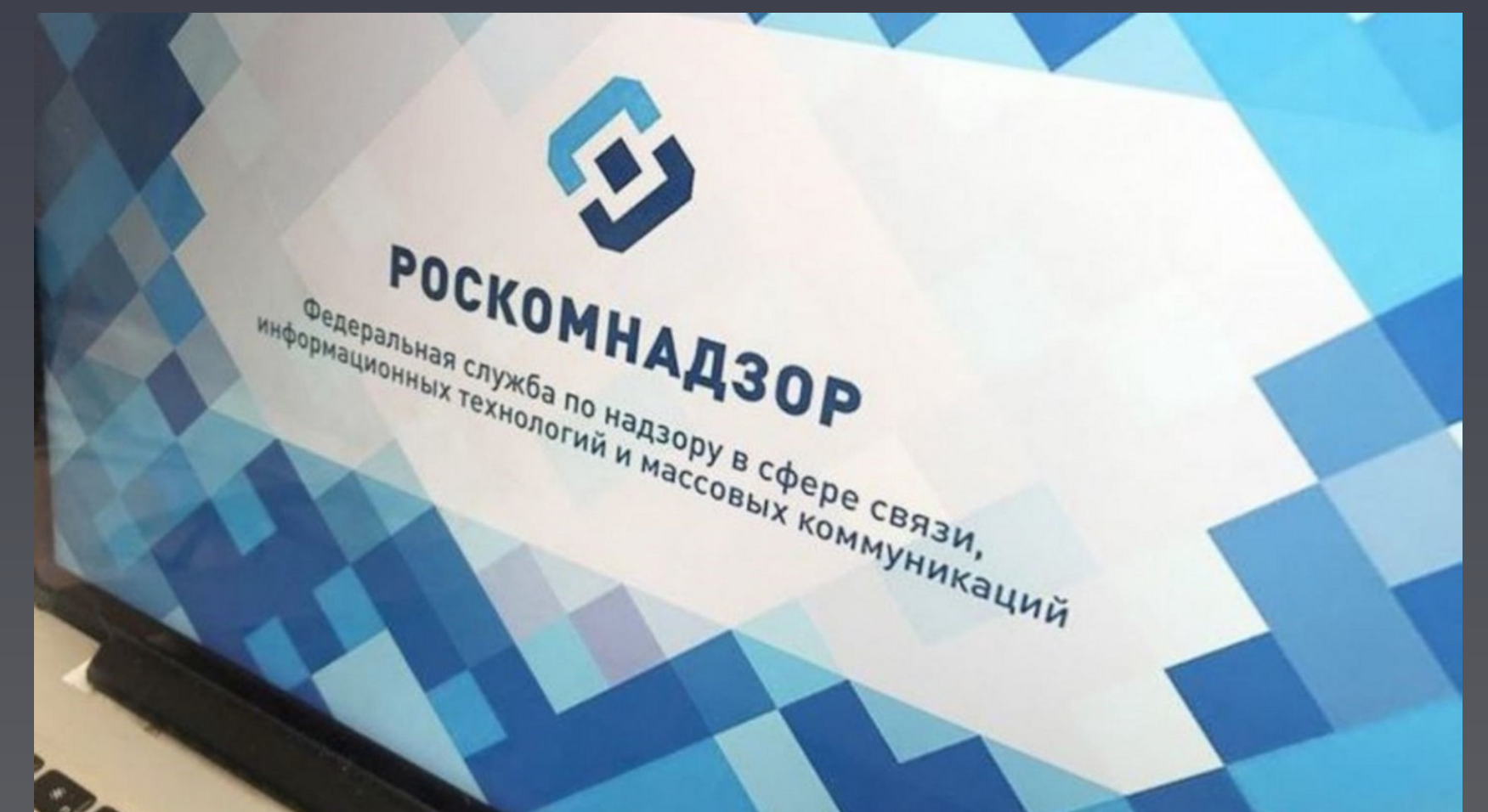
[home.treasury.gov](https://home.treasury.gov)

U.S. Treasury Issues Iran General License D-2 to Increase Support for Internet ...  
WASHINGTON – Today, the U.S. Department of the Treasury issued Iran General License (GL) D-2 to increase support for internet freedom in Iran by bringing U....

# RuNet - Russian Sovereign Internet



- Legally enabled in 2019
- Roskomnadzor, Russia's communications authority, set to create a national DNS system
- Russian ISPs required to install "deep package inspection" (DPI) tools within the country
- ISPs to route the country's web traffic and information through state-controlled exchange points
- Ban of VPN providers
- Disconnection from the global internet - a defensive move?







- In principle, internet access stays out of sanction packages
- Over-compliance the main driver of disconnected services
- Protection of the open, globally connected Internet as an imperative
- At the same time, rise of techno-nationalism

# RIPE 85 in Belgrade



- 24-28 October hybrid meeting
- On-site at Hotel Metropol
- Free tickets for Serbian students and discount tickets for non-local students
- Online participation is free!
- Programme published next week

<https://ripe85.ripe.net>



# Questions



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