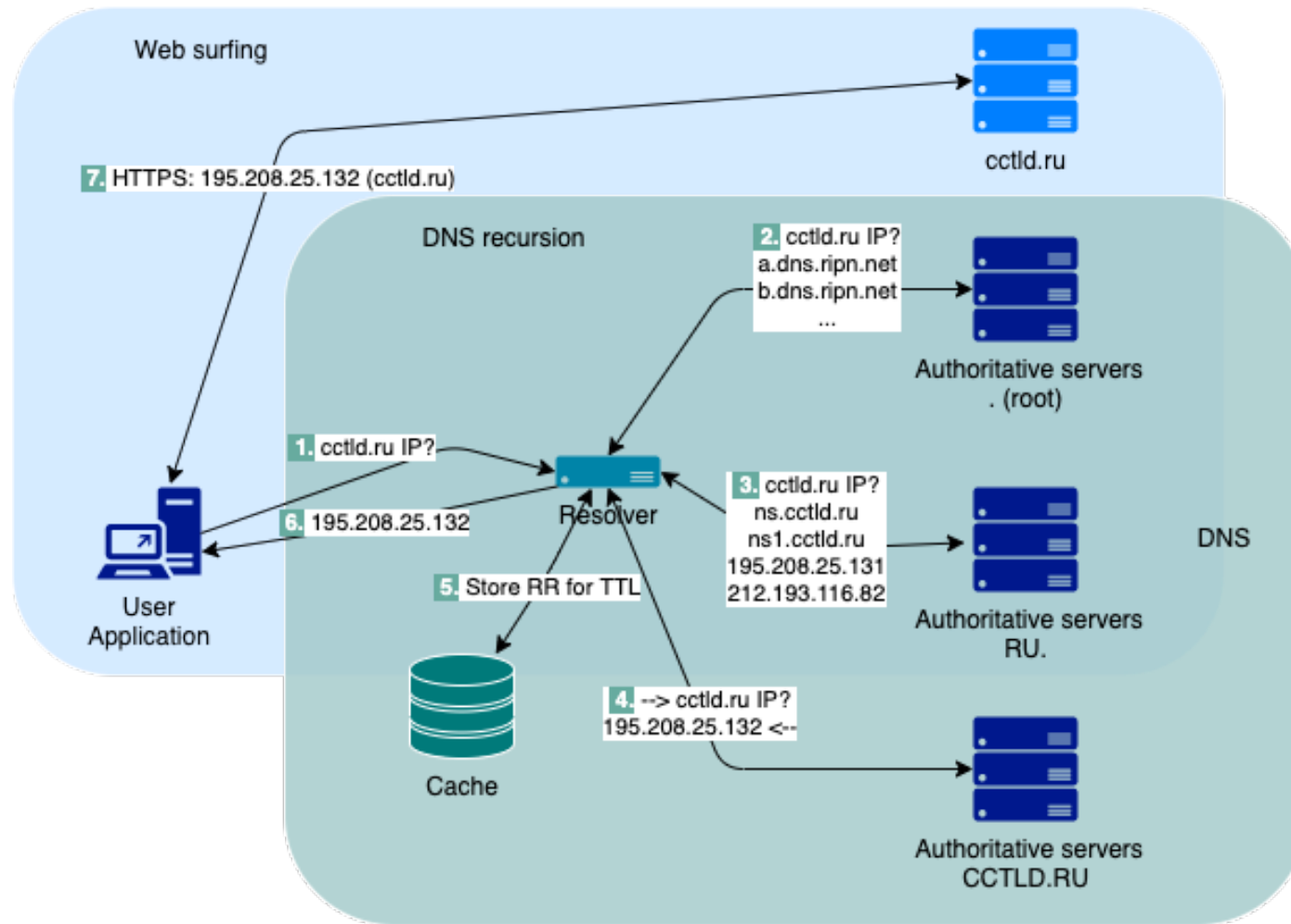


Using RU DNS-resolvers: how it looks from the outside and from the inside (completeness, reliability, representativeness)

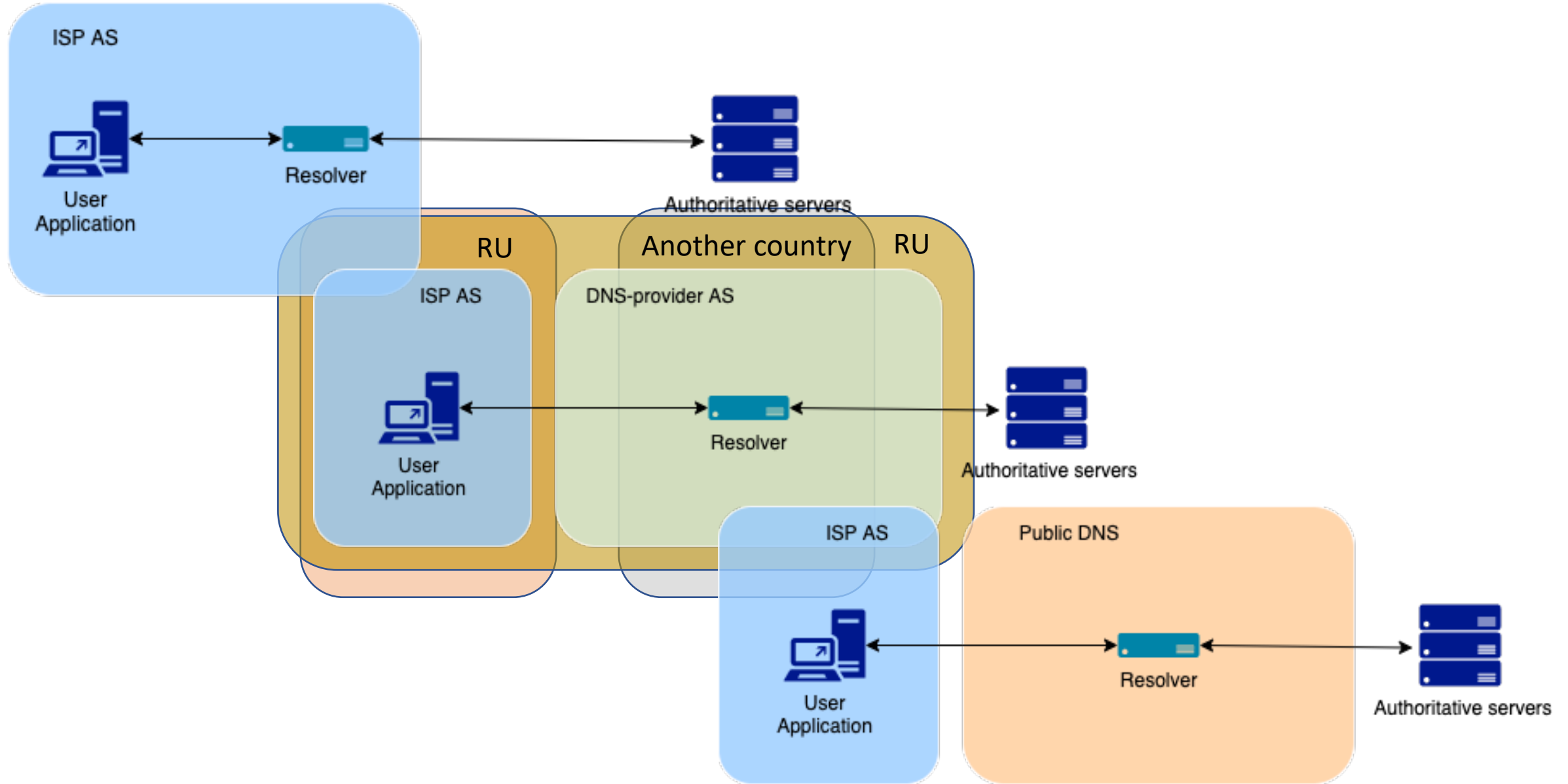
Павел Храмцов
p.khramtsov@indata.ru

Introduction (1)

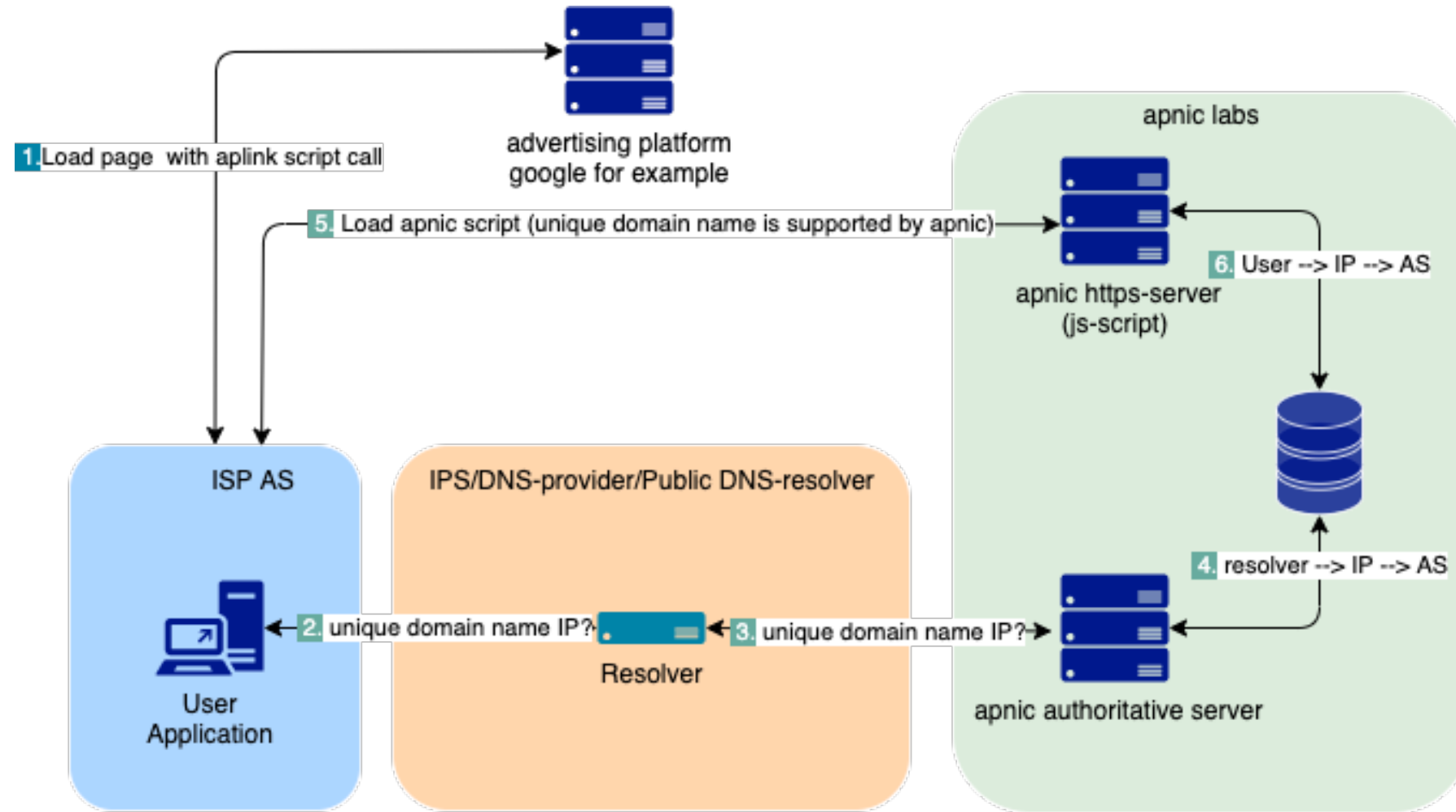


1. Данные «снаружи» – это данные apnic labs с сайта <https://stats.labs.apnic.net/rvrs>
2. Данные «изнутри» – это данные, полученные, как статистика обращений к открытым резолверам различных проектов MSK-IX (<https://kb.msk-ix.ru/public/dns-server/>) за произвольно выбранные сутки и фонда Индата (<https://www.indata.org.ru/>).

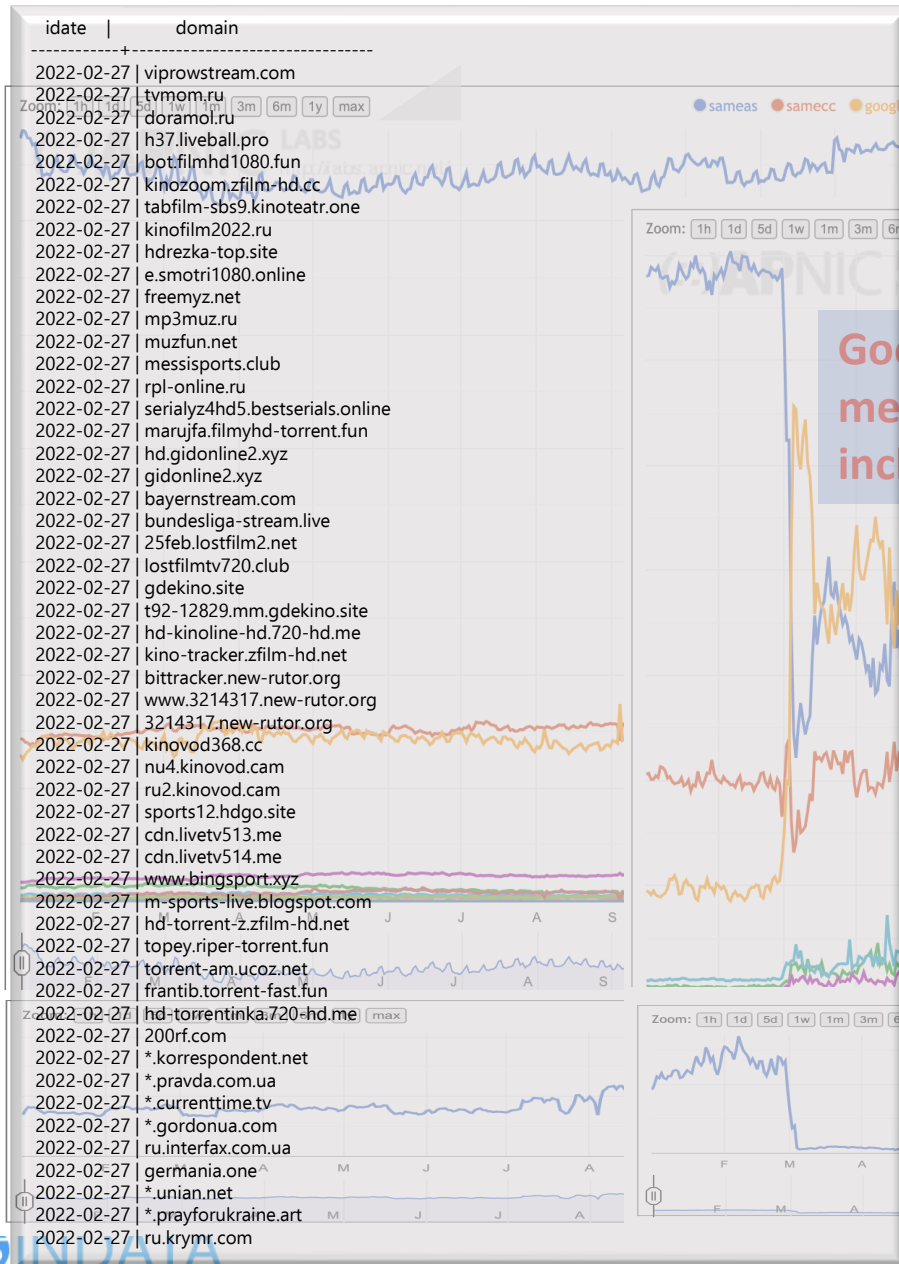
Introduction (2)



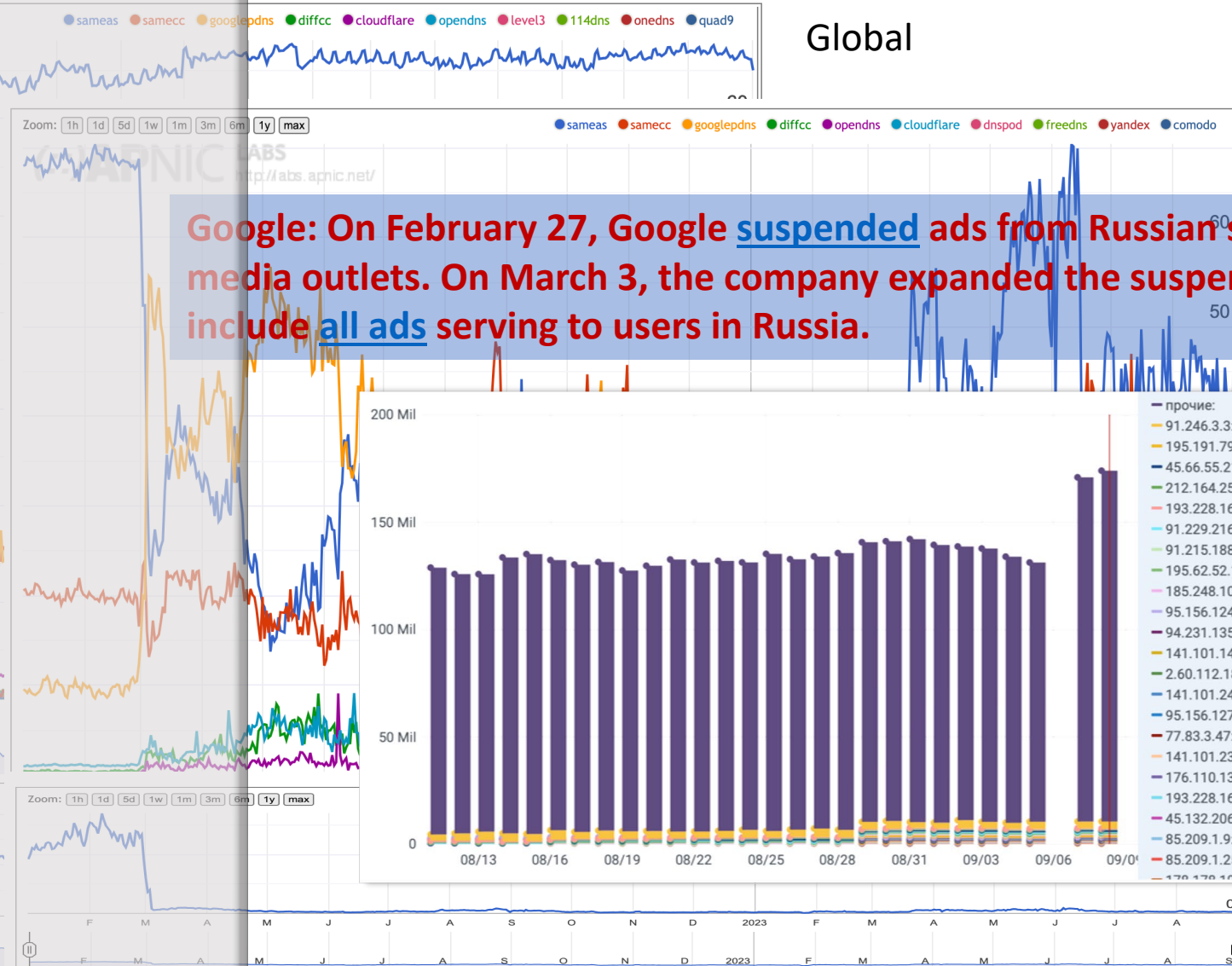
Apnic labs testbed



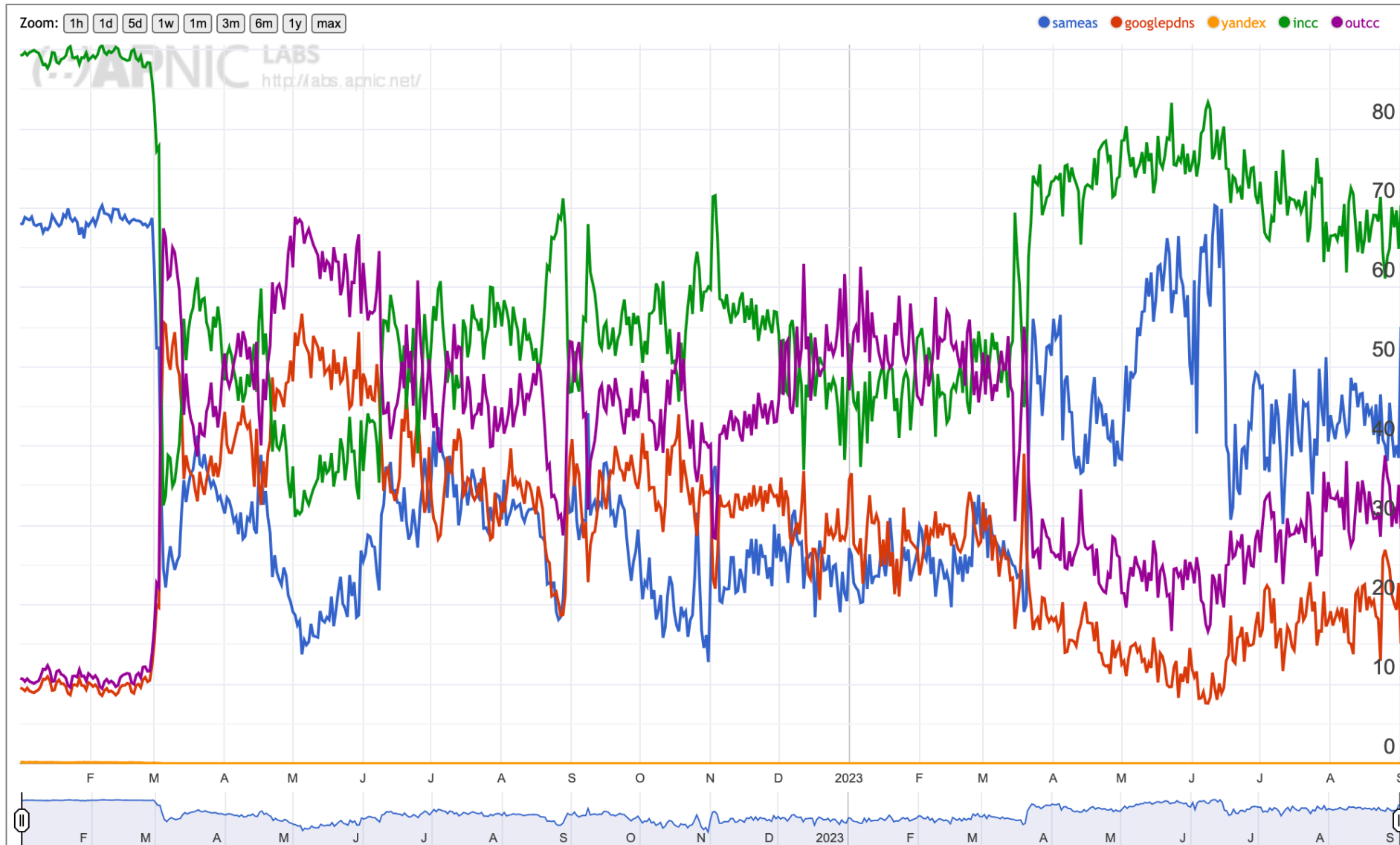
How it looks from the outside (apnic label)



Google: On February 27, Google suspended ads from Russian state-owned media outlets. On March 3, the company expanded the suspension to include all ads serving to users in Russia.



How it looks from the outside (apnic)



how it looks from the inside (msk-ix) (one random day)

- 1) AS in RU (Indata IDDB) - 5851
- 2) MSK-IX public resolvers received queries from 3584 AS
- 3) Top apnic (RU) - 136 AS
- 4) The sets intersection – 111 AS
- 5) Number of queries (MSK-IX resolvers) – 23 728 489 221
- 6) RKN “black” list – 522158 domains (UTF8 – 386623)

how it looks from the inside (msk-ix)

(one random day)

AS name	Number of queries (MSK-IX resolvers	Same AS % apnic labs	Same country % apnic labs	googledns % apnic labs
MCC Tele2 Russia Network	899712925	0	100	0
T2-EKATERINBURG-AS Tele2 Russia Network	425819088	0	0	0
ROSTELECOM-AS	372768419	8.421	90.526	1.053
TELE2-RU-AS Tele2 Russia Network	300962287	0	100	0
BCLAN-AS BCLan Networks	233160741	0	100	0
MTS	207222206	92.593	7.407	0
TRANSTELECOM Moscow Russia	127871258	100	0	0
MF-MGSM-AS PJSC MegaFon	116234787	87.5	12.5	0
BUSINESS-SVYAZ	95908905	0	0	100
LEALTA-AS Moscow Russia	92739166	0	50	0
LUTACOM-AS	87250986	0	100	0
TINKOFFMOBILE-AS	57716346	0	0	0
GOODNET-AS	53421582	0	50	0
DAGSV-AS PJSC Rostelecom Daghestan Makhachkala	53080294	0	0	100
SOVAM-AS	44761374	0	0	100
TM-AS-MSK	43581839	0	100	0
BEE-AS Russia	33544967	69.565	0	26.087
TYVASVIAZINFORM-AS	27841719	0	0	100
NCNET-AS PJSC Rostelecom ex NCNET	21225541	100	0	0
KOMTEL-DPR-AS	20608287	0	22.222	38.889

Instead of a conclusion

"There are three kinds of falsehoods, lies, damned lies and statistics."

Arthur James Balfour, 1st Earl of Balfour
Manchester Guardian, 29th June 1892