JOLLY ROGER'S PATRONS

GROUP-IB EXPOSES FINANCIAL CRIME NETWORK OF ONLINE PIRATES IN DEVELOPING COUNTRIES

Contents

Introduction

Since 2015, Group-IB has been annually estimating the size of the Russian video piracy market.

The figures are as follows:
2015: $32 million
2016: $62 million
2017: $85 million
2018: $87 million

After major pirated content delivery networks (CDNs) Moonwalk and HDGO were shut down in 2019, the market dropped to $63.5 million. It is now rising again, however, due to a second wave of CDNs.

The economic crisis caused by the pandemic, for which no country was prepared, has laid bare a number of problems in today's society. Both developing and developed countries have suffered and continue to suffer enormous losses. The world's industries have been desperately trying to survive and are searching for new strategies to ensure global stability. Analysts estimate that, over the next two years, the coronavirus pandemic will strip the world economy of some $5.5 trillion[1]. People are losing their health, their lives, their loved ones, their jobs, their businesses… The situation is becoming a global disaster whose consequences will be felt for decades to come. To make matters worse, this is when cybercrime rears its ugly head.

For more than 17 years, Group-IB has been researching the tactics, tools, and monetization schemes used by various cybercriminal groups and individuals whose overall damage to governments worldwide amounts to billions of dollars. We are acutely aware of the cyclic nature of this phenomenon. For cybercriminals, any crisis is a time of prosperity. While for most people financial instability casts aside anything other than survival, criminals raise their profits by taking vast sums of money out of people's pockets and economies. One shadow economy channel is online piracy.

The fight against this disease within the media industry has been ongoing for some 20 years, but it is only recently that the scale of the piracy business has escalated to such a colossal extent. Russian-speaking cybercriminal conglomerates are no longer content with income that comes solely from video content consumers in Russia and other post-Soviet countries. They have started branching out into international markets, mainly in developing countries. This gives them opportunities to increase the capitalization of their shadow businesses manifold.

The US media industry — the largest in the world — is also suffering losses because of piracy. The Global Innovation Policy Center of the US Chamber of Commerce estimates that online piracy costs the US economy up to $29.2 billion[2].

It has become obvious that pirate resources[3] have adapted to pressure from copyright holders. Pirate infrastructures are resilient to new technologies and certain legal initiatives. Pirates' main investors are still illegal bookmakers, casinos, and alcohol suppliers, or in other words: the entire black market, which sponsors camrip groups[4], translators, and IT infrastructures for pirated content.

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[1]   Bloomberg citing JPMorgan Chase & Co. analysis

[2]   https://www.theglobalipcenter.com/wp-content/uploads/2019/06/Digital-Video-Piracy.pdf

[3]   Hereinafter, in this report the pirate resources are defined as resources that had faced claims of copyright holders over copyright infringements, as well as resources included in the lists of violators of exclusive rights, compiled by competent authorities of different countries.

[4]   Pirate groups that specialize in recording the on-screen projections of movies (most often fiction film premiers) and their editing for the purposes of publishing them online.

The shadow economy is not alone to facilitate piracy, however. The industry has capacities to host and stream videos that are often bought by pirate platforms from legal hosting services with impunity. Pirate websites embed video players belonging to one or several CDNs and monetize the content by showing ads. Users can freely visit pirate websites, mainly through search engines or social media. Meanwhile, pirates have been making themselves increasingly richer by using processing services of banks, which inadvertently act as accomplices.

Eliminating a single component of the pirate Hydra will not kill it. It will simply regenerate. The war on it must be waged on all fronts. This is the only way to cure cyberspace, develop immunity to piracy, not just in Russia but in international markets too, and stop its out-breaks as soon as possible.

Objectives

The purpose of this report is to deliver a devastating blow to cyber-crime: to expose the entire structure of online piracy, to uncover the key organizations that sponsor this activity and those behind them.

Group-IB's report contains confidential data, including information on individuals believed to be behind some of the key piracy industry players. Copies of this report have been provided to the Russian Prosecutor General's Office, Russian and international law enforcement agencies.

As an international company, Group-IB is calling on the media industry, on regulating authorities, and on international organizations interested in fighting cybercrime to work together and help dismantle a business that has been developing for years, draining blood and cancelling the efforts of copyright holders worldwide.

Executive Summary

Shadow investors in online piracy. As part of their anti-piracy and brand protection activities, Group-IB specialists used the follow-the-money approach to identify who profited from unlawful activity. They found that illegal casinos and bookmaker companies were the main beneficiaries and drivers of illicit video streaming services and pirated sports streaming services. The leaders of the illegal casino market are Welcome Partners and Lucky Partners.

45%
of pirate websites, primarily watched by the Russians, use the content provided by Collaps CDN

Taking advantage of geopolitical tensions. Those behind one of the most popular CDNs, Collaps, which provides content to 45% of pirate websites primarily watched by the Russians, are based in Ukraine which allows them to continue unlawful activity.

Use of Russian banks and international payment systems in criminal schemes. Despite most of their owners residing in Ukraine, popular online casinos have been using Russian banks to receive payments as part of their monetization schemes. None of the banks classify this type of activity as MCC[5] 7995.

$21,000+
made by bookmakers with well-developed partner programs per month

Symbiosis of gambling and pirated online traffic. Next to films and TV series, sports streaming is becoming a new source of revenue for pirates. The main advertisers in this case are quasi-legal bookmakers: 1xBet, Melbet, Parimatch, Linebet, Orca88, Bwin, and others. A streaming service's average revenue is between 20% and 40% of the sum lost by the gamblers it attracted (depending on the partner program). Well-developed partner programs help bookmakers make more than $21,000 per month (for a website with an average of 70-80 gamblers attracted daily).

[5] Merchant Category Code is a four-digit number used to classify a particular business when a bank card payment is made.

500+

total camrip releases
made by 1xBet in 2018

270+

Total titles covered
by 1xBet in 2018

Russian-speaking cybercrime in international markets. After being blocked in Russia, shadow bookmakers shifted their focus to:

· Latin America (mainly Brazil);
· India;
· Thailand.

Having polished their schemes in Russia (which has traditionally been used as a testing ground for cybercrime), they started entering markets with similar characteristics: developing countries, non-English speaking regions, populations with low financial literacy, and countries where sports streaming is highly popular.

This situation resulted in a symbiosis of gambling companies and pirated content. Since 2015, 1xBet has allegedly sponsored content for 17 TV show voiceover studios (i.e. 80% of major voiceover studios). 1xBet is one of the main sponsors of illegal distribution of TV series in the post-Soviet region. What's more, in 2018 1xBet started creating content for other countries:

Total releases: over 500.

Total titles covered: over 270.

Distribution by language:

· 100%[6] of camrips are in English;
· 14% of camrips are in Spanish;
· 5% of camrips are in other languages (Tamil (predominantly spoken in India's South), Portuguese, Thai, Hindi, and others).

Evasion of technical blocking and lawful prosecution. Content delivery networks (CDNs) play a key role in online piracy. They are services that aggregate pirated content and optimize its delivery to the customer. They supply up to 80% of illegal video streaming services in Russia and other post-Soviet countries.

The characteristics of second-wave CDNs are:

· frequent changes of technical domains and IP pools;
· use of geographically distributed infrastructures;
· duplicate and reserve content delivery channels, which are usually rented from various Internet service providers.

These measures have made the currently enforced practices stipulated in anti-piracy legislation ineffective.

Exploitation of legal hosting services' capacities. Group-IB studied the activities of several pirate groups. Analyses of their technical infrastructures revealed that they systematically used capacities belonging to Russian companies.

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[6]   One camrip can be in several languages (e.g. in English and dubbed in Spanish).

Having analyzed the number of CDNs utilizing Mnogobyte's infrastructure, we determined that the company Mnogobyte is likely to be one of the leaders in providing hosting services for pirate CDNs.[7] A copyright holder's complaint about pirate services being hosted by a hosting service will yield no results because unique links created for each user individually cannot be opened by anyone else. This means that a hosting service whose servers are used by pirate CDNs has all formal grounds to remove themselves from handling the matter, absolve themselves from any responsibility, and continue to make money by providing a platform for pirate businesses.

In addition, analyses revealed a number of network addresses that serviced pirate websites and officially belonged to a company called DDOS-GUARD. The company regularly ensures the operation of services that engage in unlawful activity, thereby essentially providing tools for committing offences.

Infection of pirated content with malware. The growing number of online users goes hand in hand with increased fraud and more criminal groups that operate online. Because of how popular they are, pirate websites (streaming services, torrent trackers, etc.) act as platforms for distributing malware and stealing users' money and personal data. During the pandemic, Group-IB checked over 3,100 pirated content websites for viruses, vulnerabilities, and inclusion in blacklists compiled by antivirus providers and search engines. The analysis revealed that up to 23% of pirate resources posed risks to users. In March, the number of total visits to dangerous resources amounted to 76.8 million. Most of these resources were in the .RU domain.

23%

of 3,100 pirate resources analyzed during the pandemic posed risks to users

76.8 mln

is the amount of total visits to dangerous resources in March

[7] The main outcomes of this analysis are provided in the Infrastructure of pirate CDNs chapter. All the details can be provided at the formal request of competent authorities.

Introduction to video piracy

CDN service Moonwalk

was blocked by the anti-piracy groups BREIN, ACE and MPA in October 2019 after Group-IB`s report was released

The current situation on the online piracy market is developing against the background of the actively enforced anti-piracy law and cooperation between copyright holders and popular search engines.

In addition, the closure of major first-wave pirate CDN services had a significant impact on the market. After Group-IB's report was released, in October 2019 the anti-piracy groups BREIN, ACE, and MPA took down Moonwalk, the most popular CDN service at the time. Acting on behalf of these groups, law enforcement officers disabled the servers — which ensured Moonwalk's operation — belonging to three Dutch hosting services and two overseas companies whose servers were physically located in the Netherlands. The shutdown of Moonwalk led to the closure of a major CDN HDGO, with another provider, Kodik, losing a significant part of its content. Both used the same infrastructure as Moonwalk.

Under such conditions, the behavior of pirate website administrators is characterized by a desire to eliminate risks by:

1.

Diversifying content sources

Many pirate websites use several CDNs at once in case one of them fails. In addition, CDN aggregators such as Yohoho, Emblix, Uitools, and others are becoming increasingly popular. Aggregators track content on all major CDNs and provide their own video players, which makes it possible to switch CDNs at the user's discretion.

2.

Optimizing database provisioning

Pirate website administrators who are constantly forced to create new websites due to blocking have a myriad of modules and scripts that help them quickly transfer and recover databases. To sync pirate databases, they use film IDs of major specialized portals such as Kinopoisk and IMDB.

3.

Shifting from quality to quantity

Pirates used to put most of their efforts into developing a small number of websites operated simultaneously. Due to search engine results being actively blocked and cleared, however, this tactic is being used less and less often, mainly by blocked major websites whose owners rely on their audiences' loyalty despite the need to use blocking evasion tools. Other webmasters prefer attracting traffic by creating many identical sites. This way, losing one site will not result in any significant negative consequences.

4.

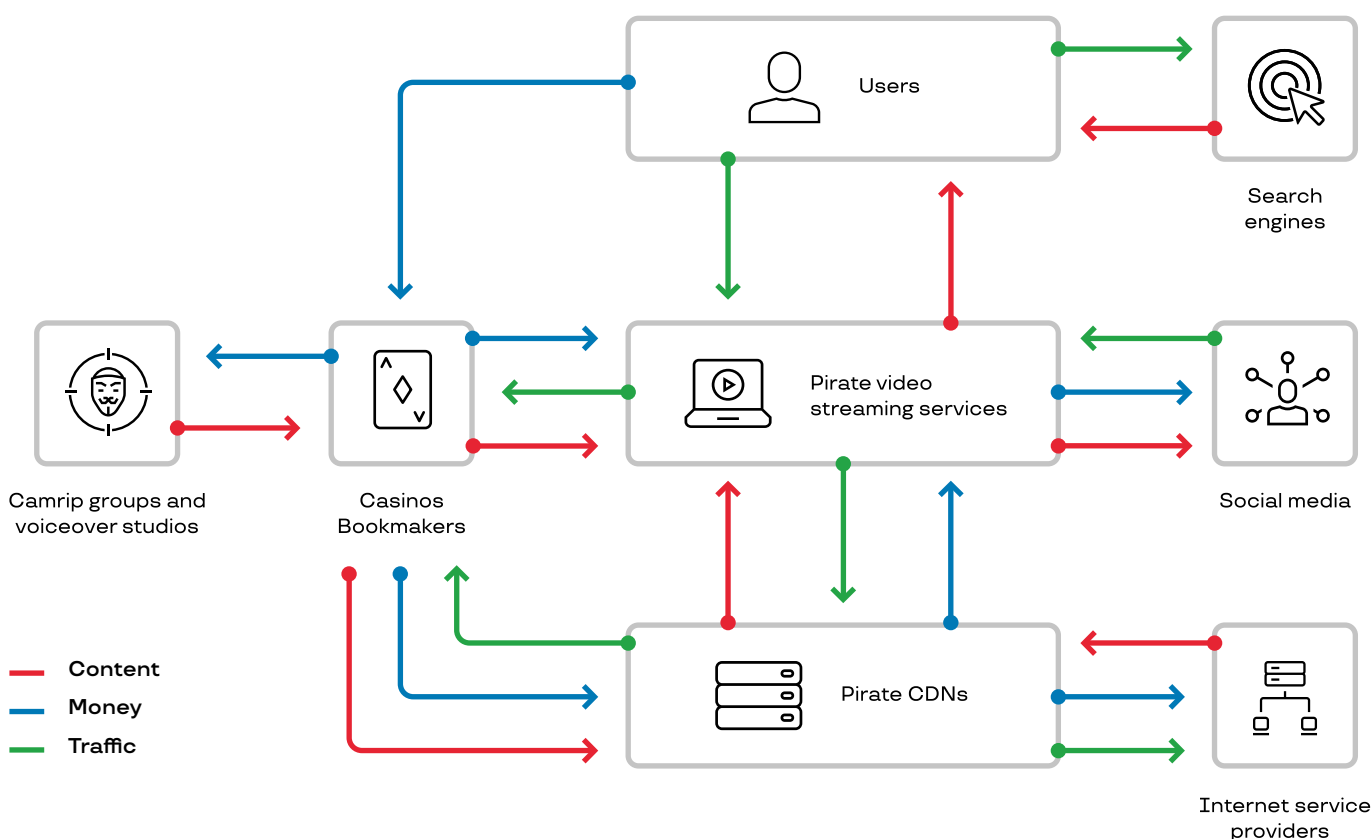**Increasing the share of new CDNs that use Russian infrastructure**

The shift in focus to Russian Internet service providers is connected to three factors: (i) the seizure of the Dutch servers that hosted Moonwalk, HDGO, and Kodik; (ii) the availability of Russian services; and (iii) the lack of successful and tangible legal action against Russian Internet service providers that offer their capacities to pirate websites.

The current structure of the pirated video market comprises:

1. Specialized advertising networks (bookmakers, casinos, alcohol, etc.) that sponsor camrip groups, translators, CDNs, and pirate websites.
2. CDNs that offer their capacities for video hosting and streaming. In turn, these capacities are purchased by pirate platforms from legal hosting services.
3. Pirate websites that embed the players belonging to one or more CDNs and monetize content by displaying ads to users.
4. Users who visit pirate websites mainly through search engines and social media.

Content
Money
Traffic

Users

Search engines

Camrip groups and voiceover studios

Casinos Bookmakers

Pirate video streaming services

Social media

Pirate CDNs

Internet service providers

up to 80%

of pirate video streaming services in Russia and other post-Soviet countries are provided with content from CDNs

CDNs play a key role in online piracy. These services aggregate pirated content, optimize its delivery to the end user, and help video streaming services make money through partner programs. CDNs provide content to up to 80% of pirate video streaming services in Russia and other post-Soviet countries.

CDNs are not hosting services or communications service providers. Instead, they use server capacities provided by other (legitimate) Internet service providers.

The main problem that copyright holders face when interacting with CDNs is that their complaints are ignored and their demands are met on paper only. In particular, many CDNs create links for specific users or devices using tokens. Moreover, these links often function for a limited time only. Complaints about such links are ineffective because the links change regularly, while illegal content continues to be distributed. CDNs take no measures against violators, thereby encouraging unlawful activity.

Legal hosting services whose servers are used by CDNs usually refuse to handle the issue and evade responsibility by giving formal replies that given links are unavailable.

At the moment, the main CDNs are:

· Collaps
· HDVB
· VideoCDN
· Kodik
· Videoframe
· Bazon
· Ustore
· Alloha
· Protonvideo

The specific characteristics of second-wave CDNs are:

· frequent changes of technical domains and IP pools;
· use of geographically distributed infrastructures;
· duplicate and reserve content delivery channels, which are usually rented from various providers.

A number of the largest streaming services (e.g. Hdrezka) have their own servers designed to store and deliver video content. In most cases, however, these servers are not used by other resources since they do not involve partner programs and therefore bring no profit.

Threat of pirate websites

As they are highly popular, pirate sites (streaming services, torrent trackers, etc.) are convenient platforms for distributing malware and stealing users' money and personal data. These sites can be both sources of threats (if their administrators are threat actors) and targets for other threat actors.

During the pandemic, Group-IB screened over 3,100 pirated content websites for viruses, vulnerabilities, and inclusion in blacklists compiled by antivirus software providers and search engines.

The resources were divided into three risk categories:

3,100

pirated content websites were screened by Group-IB during the pandemic

1. ▬ ▭ ▭

Safe websites

Visiting these websites did not entail any risks to users.

2. ▬ ▬ ▭

Relatively safe websites

No threats were detected on these websites. However, analysis revealed various vulnerabilities that could potentially be used for unlawful activities. Such vulnerabilities are most often the result of outdated or hacked software (e.g. CMS[8]).

3. ▬ ▬ ▬

Dangerous websites

These are websites where various threats (including malware) were detected or websites that have been included in blacklists compiled by antivirus software providers and search engines.

±23%

of 3,100 pirate resources analyzed during the pandemic posed risks to users

76.8 mln

is the amount of total visits to dangerous resources in March

Analysis revealed that up to 23% of pirate resources posed risks to users. Moreover, total visits to dangerous resources in March amounted to 76.8 million.

Distribution by category:

6% Safe

23% Dangerous

71% Relatively safe

Threat of pirate websites
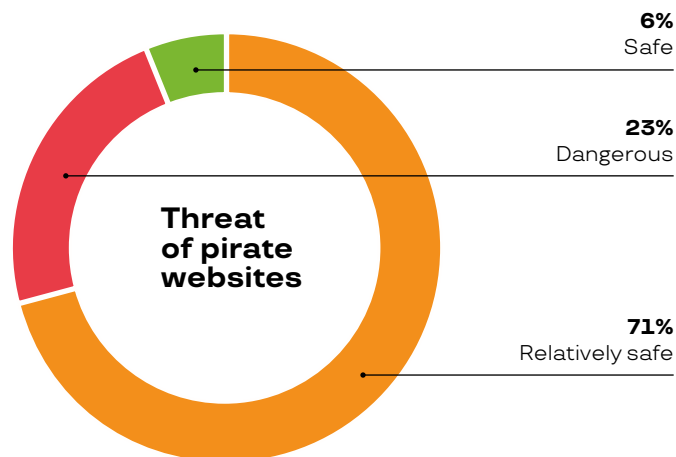
[8]   Content Management System

Most pirate resources use outdated or hacked software as well as custom-made parts of code, all of which can contain vulnerabilities. The two main reasons for this are a desire to save on the costs of creating and operating a website and the fact that some administrators have poor technical skills.

The fact that most dangerous resources are in the .RU domain also supports this claim. Experienced webmasters tend to use overseas domains, including offshore ones, to host their resources. Registering a pirate resource in the .RU domain is easier for beginners, although it does involve legal risks. At the same time, these webmasters do not always have the necessary technical knowledge and tools to ensure that their resources are safe.

.RU **24%**

.NET **11.1%**

.ONLINE **7.2%**

.COM **6.7%**

.ORG **5.7%**

.SITE **4.2%**

.XYZ **4.0%**

.TOP **3.1%**

.CLUB **3.1%**

.INFO **3.1%**

.ME **2.6%**

.CC **2.6%**

.FUN **1.8%**

.SU **1.6%**

.PW **1.5%**

.BIZ **1.5%**

.PRO **1.3%**

.TV **1.1%**

.CO **0.9%**

.ML **0.8%**

OTHERS **12.1%**
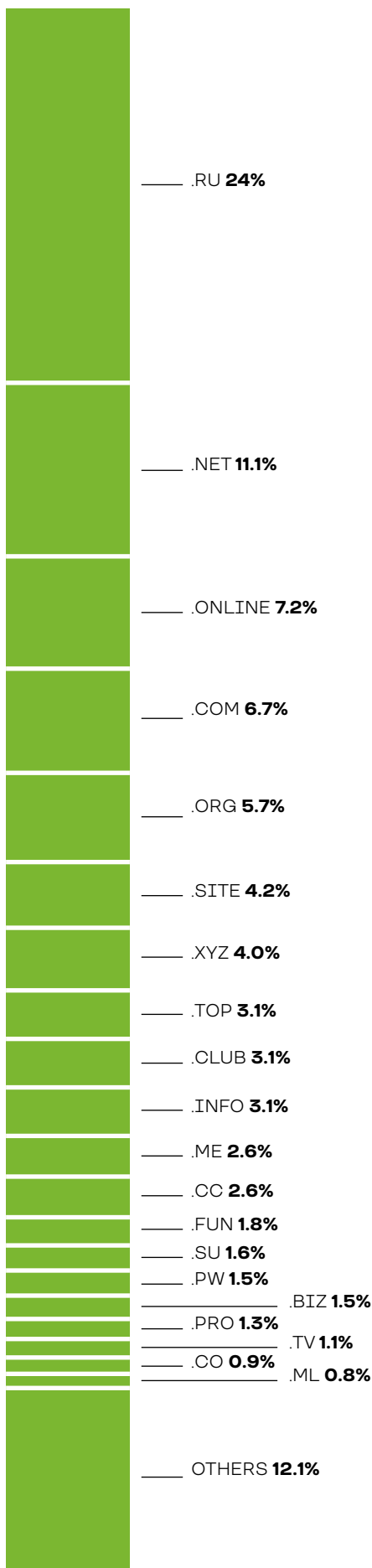
Distribution of dangerous
resources by type:

2%
Other

30%
Torrent

68%
Streaming
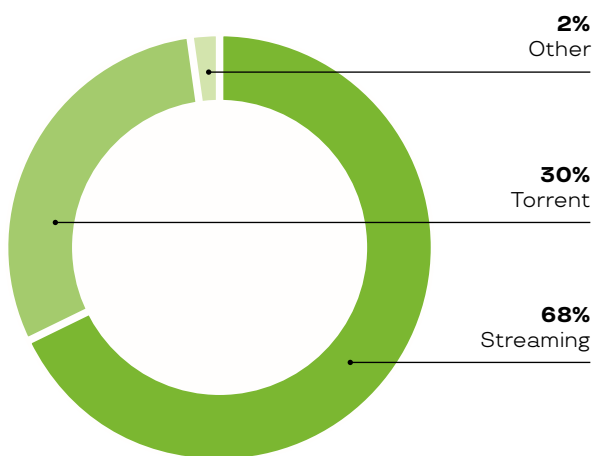
Infrastructure of pirate CDNs

Collaps

Collaps is one of the most popular CDNs. We believe that its organizers are from Ukraine. They are also the creators of two large pirate streaming services, Baskino and Hdrezka. As at late 2019, 45% of pirate streaming services used this CDN.[9]

The main domain is collaps.org. Video players are placed on third-level technical domains, with formats including *.delivembed.cc, *.multikland.net, *.ellinagraypel.com, *. iframecdn.club, and *.apicollaps.

At the moment, access to many of them is restricted. To bypass blocking, the service promptly generates new technical domains and regularly changes its IP pool. New domains are created according to the template api*.(multikland.net|delivembed.cc|elli-nagraypel.com) and using the function JavaScript Date.Now().

The content is distributed using technical domains with the formats *.s2w3.space, *.pixars.org, and *.embedcdn.cc. The links were found between the CDN Collaps and the pirate streaming services Baskino and Hdrezka.

This assumption is based on the following facts:

1. The domains collaps.org and baskino.club used to have the same Google Analytics ID (UA-131285663). At the moment, this ID is used by more than 50 pirate websites, including bzserial.online, hd-kino.info, kino-tyr.ru, kinogram.life, and anilive.su.

2. The current domain http://baskino.me has only Collaps and Hdrezka video players embedded.

3. A person, whose personal details match those of the official representative of the Baskino website on VKontakte, a social networking site (https://vk.com/baskino), is mentioned as the registrar for numerous Hdrezka mirror websites (e.g. hdrez-ka-ag.com, mrhdrezka.com, betahdrezka.com, myhdrezka.com, newhdrezka.com, aghdrezka.com, wehdrezka.com, nuhdrezka.com, instahdrezka.com).

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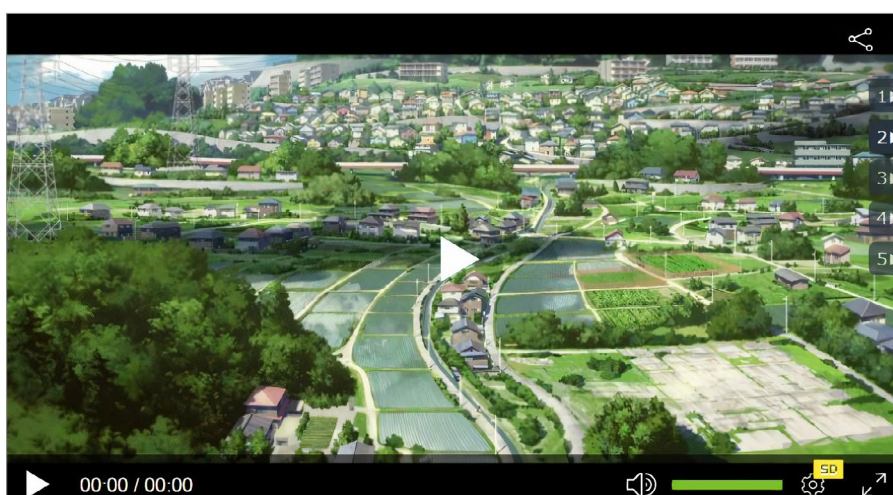
[9] Hereinafter, the share of pirate websites using a particular CDN is shown in relation to the total number of pirate websites analyzed. One site can use multiple CDNs at once.

IP address	Domain	ISP	ASN	Location
104.27.150.223 104.27.151.223	collaps.org	CloudFlare Inc.	13335	United States
190.2.139.42	c1.pixars.org	WorldStream B.V.	49981	Netherlands
179.43.176.156	m1.rumer.club	Private Layer INC	51852	Switzerland
5.61.58.226	zombie-film.com	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.226	zombie-film.club	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.59.104	kinogram.life	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.226	apicollaps.cc	ISPIRIA Networks Ltd	50673 58061	Netherlands
37.1.201.235	baskino.club	ISPIRIA Networks Ltd	50673 58061	Netherlands
37.1.201.235	baskino.me	ISPIRIA Networks Ltd	50673 58061	Netherlands
37.1.205.8	baskino.com	ISPIRIA Networks Ltd	50673 58061	Netherlands
179.43.176.226	api.delivembed.cc	Private Layer INC	51852	Switzerland
179.43.174.130	api1563373691618.delivembed.cc	Private Layer INC	51852	Switzerland
179.43.174.130	api1563456141.delivembed.cc	Private Layer INC	51852	Switzerland
179.43.174.130	api1563568942.delivembed.cc	Private Layer INC	51852	Switzerland
179.43.176.226	api1563598836.delivembed.cc	Private Layer INC	51852	Switzerland
179.43.176.226	api1563780792530.delivembed.cc	Private Layer INC	51852	Switzerland
179.43.176.226	api1563787265533.delivembed.cc	Private Layer INC	51852	Switzerland
179.43.176.226	api1563787299365.delivembed.cc	Private Layer INC	51852	Switzerland
179.43.176.226	api1563804355.delivembed.cc	Private Layer INC	51852	Switzerland
179.43.176.226	api1563826656.delivembed.cc	Private Layer INC	51852	Switzerland
179.43.176.226	api1563950096350.delivembed.cc	Private Layer INC	51852	Switzerland
179.43.176.208	api1587992347.multikland.net	Private Layer INC	51852	Switzerland
179.43.176.206	api1588070926901.multikland.net	Private Layer INC	51852	Switzerland
179.43.176.206	api1588073338008.multikland.net	Private Layer INC	51852	Switzerland
179.43.176.206	api1586724976.multikland.net	Private Layer INC	51852	Switzerland
179.43.176.208	api1586743390.multikland.net	Private Layer INC	51852	Switzerland
93.190.139.139	hls-c1.s2w3.space	WorldStream B.V.	49981	Netherlands
178.132.3.36	hls-t001-l001-c002-s001.s2w3.space	WorldStream B.V.	49981	Netherlands
51.83.237.65	hls-t001-l001-c003-s001.s2w3.space	OVH SAS	16276	France
89.38.98.23	hls-t001-l001-c004-s001.s2w3.space	WorldStream B.V.	49981	Netherlands
190.2.130.119	hls-t001-l001-c005-s001.s2w3.space	WorldStream B.V.	49981	Netherlands
190.2.133.242	hls-t001-l001-c006-s001.s2w3.space	WorldStream B.V.	49981	Netherlands
89.38.98.65	hls-t001-l001-c007-s001.s2w3.space	WorldStream B.V.	49981	Netherlands

IP address	Domain	ISP	ASN	Location
91.229.23.61	hls-t001-l001-c009-s001.s2w3.space	WorldStream B.V.	49981	Netherlands
89.38.99.149	hls-t001-l001-c011-s001.s2w3.space	WorldStream B.V.	49981	Netherlands
109.236.93.13	hls-t001-l001-c012-s001.s2w3.space	WorldStream B.V.	49981	Netherlands
190.2.133.153	hls-t001-l001-c013-s001.s2w3.space	WorldStream B.V.	49981	Netherlands
190.2.136.90	hls-t001-l001-c014-s001.s2w3.space	WorldStream B.V.	49981	Netherlands
89.38.97.203	hls-t001-l001-c015-s001.s2w3.space	WorldStream B.V.	49981	Netherlands
62.112.10.207	hls-t001-l001-c017-s001.s2w3.space	WorldStream B.V.	49981	Netherlands
89.38.99.211	hls-t001-l001-c018-s001.s2w3.space	WorldStream B.V.	49981	Netherlands
93.190.142.106	hls-t001-l001-c019-s001.s2w3.space	WorldStream B.V.	49981	Netherlands
51.83.238.6	hls-t001-l001-c020-s001.s2w3.space	OVH SAS	16276	France
190.2.134.245	hls-t001-l001-c021-s001.s2w3.space	WorldStream B.V.	49981	Netherlands
51.83.238.2	hls-t001-l001-c022-s001.s2w3.space	OVH SAS	16276	France
190.2.133.153	hls-t001-l001-c024-s001.s2w3.space	WorldStream B.V.	49981	Netherlands
89.38.99.211	hls-t001-l001-c025-s001.s2w3.space	WorldStream B.V.	49981	Netherlands
190.2.133.239	hls-t001-l001-c026-s001.s2w3.space	WorldStream B.V.	49981	Netherlands
190.2.130.119	hls-t001-l001-c029-s001.s2w3.space	WorldStream B.V.	49981	Netherlands
190.2.133.50	hls-t001-l001-c030-s001.s2w3.space	WorldStream B.V.	49981	Netherlands
89.38.98.65	hls-t001-l001-c031-s001.s2w3.space	WorldStream B.V.	49981	Netherlands
89.39.104.57	hls-t001-l001-c032-s001.s2w3.space	WorldStream B.V.	49981	Netherlands
51.91.62.202	hls-t001-l001-c036-s001.s2w3.space	OVH SAS	16276	France
62.112.10.207	hls-t001-l001-c037-s001.s2w3.space	WorldStream B.V.	49981	Netherlands
190.2.136.90	hls-t001-l001-c038-s001.s2w3.space	WorldStream B.V.	49981	Netherlands
190.2.134.211	hls-t001-l001-c039-s001.s2w3.space	WorldStream B.V.	49981	Netherlands
93.190.139.139	dash-t001-l001-c001-s001.pixars.org	WorldStream B.V.	49981	Netherlands
91.229.23.61	dash-t001-l001-c002-s001.pixars.org	WorldStream B.V.	49981	Netherlands
51.83.237.65	dash-t001-l001-c003-s001.pixars.org	OVH SAS	16276	France
89.38.98.23	dash-t001-l001-c004-s001.pixars.org	WorldStream B.V.	49981	Netherlands
190.2.130.119	dash-t001-l001-c005-s001.pixars.org	WorldStream B.V.	49981	Netherlands
190.2.133.242	dash-t001-l001-c006-s001.pixars.org	WorldStream B.V.	49981	Netherlands
89.38.98.23	dash-t001-l001-c007-s001.pixars.org	WorldStream B.V.	49981	Netherlands
93.190.142.106	dash-t001-l001-c008-s001.pixars.org	WorldStream B.V.	49981	Netherlands
91.229.23.61	dash-t001-l001-c009-s001.pixars.org	WorldStream B.V.	49981	Netherlands
51.83.237.114	dash-t001-l001-c010-s001.pixars.org	OVH SAS	16276	France
89.38.99.149	dash-t001-l001-c011-s001.pixars.org	WorldStream B.V.	49981	Netherlands
109.236.93.13	dash-t001-l001-c012-s001.pixars.org	WorldStream B.V.	49981	Netherlands
190.2.133.153	dash-t001-l001-c013-s001.pixars.org	WorldStream B.V.	49981	Netherlands
190.2.136.90	dash-t001-l001-c014-s001.pixars.org	WorldStream B.V.	49981	Netherlands
89.38.97.203	dash-t001-l001-c015-s001.pixars.org	WorldStream B.V.	49981	Netherlands
190.2.134.245	dash-t001-l001-c016-s001.pixars.org	WorldStream B.V.	49981	Netherlands

IP address	Domain	ISP	ASN	Location
62.112.10.207	dash-t001-l001-c017-s001.pixars.org	WorldStream B.V.	49981	Netherlands
89.38.99.211	dash-t001-l001-c018-s001.pixars.org	WorldStream B.V.	49981	Netherlands
93.190.142.106	dash-t001-l001-c019-s001.pixars.org	WorldStream B.V.	49981	Netherlands
51.83.238.6	dash-t001-l001-c020-s001.pixars.org	OVH SAS	16276	France
190.2.134.245	dash-t001-l001-c021-s001.pixars.org	WorldStream B.V.	49981	Netherlands
51.83.238.2	dash-t001-l001-c022-s001.pixars.org	OVH SAS	16276	France
89.38.99.149	dash-t001-l001-c023-s001.pixars.org	WorldStream B.V.	49981	Netherlands
190.2.133.153	dash-t001-l001-c024-s001.pixars.org	WorldStream B.V.	49981	Netherlands
89.38.99.211	dash-t001-l001-c025-s001.pixars.org	WorldStream B.V.	49981	Netherlands
190.2.133.239	dash-t001-l001-c026-s001.pixars.org	WorldStream B.V.	49981	Netherlands
51.83.237.65	dash-t001-l001-c027-s001.pixars.org	OVH SAS	16276	France
190.2.133.50	dash-t001-l001-c028-s001.pixars.org	WorldStream B.V.	49981	Netherlands
190.2.130.119	dash-t001-l001-c029-s001.pixars.org	WorldStream B.V.	49981	Netherlands
109.236.93.14	dash-t001-l001-c030-s001.pixars.org	WorldStream B.V.	49981	Netherlands
89.38.98.65	dash-t001-l001-c031-s001.pixars.org	WorldStream B.V.	49981	Netherlands
89.39.104.57	dash-t001-l001-c032-s001.pixars.org	WorldStream B.V.	49981	Netherlands
109.236.93.7	dash-t001-l001-c033-s001.pixars.org	WorldStream B.V.	49981	Netherlands
51.83.237.114	dash-t001-l001-c034-s001.pixars.org	OVH SAS	16276	France
62.112.9.14	dash-t001-l001-c035-s001.pixars.org	WorldStream B.V.	49981	Netherlands
51.91.62.202	dash-t001-l001-c036-s001.pixars.org	OVH SAS	16276	France
190.2.136.90	dash-t001-l001-c038-s001.pixars.org	WorldStream B.V.	49981	Netherlands
190.2.134.211	dash-t001-l001-c039-s001.pixars.org	WorldStream B.V.	49981	Netherlands
109.236.93.14	dash-t001-l001-c040-s001.pixars.org	WorldStream B.V.	49981	Netherlands
89.38.97.203	dash-t001-l001-c041-s001.pixars.org	WorldStream B.V.	49981	Netherlands
93.190.141.236	dash-t001-l001-c042-s001.pixars.org	WorldStream B.V.	49981	Netherlands
51.91.62.202	dash-t001-l001-c043-s001.pixars.org	OVH SAS	16276	France
51.83.238.6	dash-t001-l001-c044-s001.pixars.org	OVH SAS	16276	France
190.2.130.121	dash-t001-l001-c045-s001.pixars.org	WorldStream B.V.	49981	Netherlands
51.83.238.2	dash-t001-l001-c046-s001.pixars.org	OVH SAS	16276	France
190.2.134.204	dash-t001-l001-c047-s001.pixars.org	WorldStream B.V.	49981	Netherlands
109.236.87.98	dash-t001-l001-c048-s001.pixars.org	WorldStream B.V.	49981	Netherlands
198.54.117.197	api1571765124.iframecdn.club	Namecheap, Inc.	22612	United States
198.54.117.197	api1571781804.iframecdn.club	Namecheap, Inc.	22612	United States
198.54.117.197	api1571781809.iframecdn.club	Namecheap, Inc.	22612	United States
198.54.117.197	api1571781818.iframecdn.club	Namecheap, Inc.	22612	United States
5.61.59.104	api1574435926.apicollaps.cc	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.226	api1574611456.apicollaps.cc	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.59.104	api1574695620.apicollaps.cc	ISPIRIA Networks Ltd	50673 58061	Netherlands

IP address	Domain	ISP	ASN	Location
5.61.59.104	api1574752795.apicollaps.cc	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.59.104	api1576394528.apicollaps.cc	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.226	api1577286844.apicollaps.cc	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.226	api1577529908.apicollaps.cc	ISPIRIA Networks Ltd	50673 58061	Netherlands
46.105.102.26	api1577647047966.ellinagraypel.com	OVH SAS	16276	France
46.105.102.26	api1577647366849.ellinagraypel.com	OVH SAS	16276	France
46.105.102.26	api1577648051743.ellinagraypel.com	OVH SAS	16276	France
46.105.102.26	api1577648121668.ellinagraypel.com	OVH SAS	16276	France
5.61.58.226	api1579820407.apicollaps.cc	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.59.104	api1579820409.apicollaps.cc	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.226	api1579820412.apicollaps.cc	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.226	api1579820413.apicollaps.cc	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.59.104	api1579824909.apicollaps.cc	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.226	api1579841105.apicollaps.cc	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.226	api2.apicollaps.cc	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.226	api3.apicollaps.cc	ISPIRIA Networks Ltd	50673 58061	Netherlands
88.198.45.139	hls-t001-l001-c001-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
46.4.69.12	hls-t001-l001-c002-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
116.202.232.122	hls-t001-l001-c003-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
136.243.134.172	hls-t001-l001-c004-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
116.202.161.39	hls-t001-l001-c005-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
78.46.95.85	hls-t001-l001-c006-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
176.9.10.214	hls-t001-l001-c007-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
116.202.213.45	hls-t001-l001-c008-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
116.202.209.217	hls-t001-l001-c009-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
88.99.63.252	hls-t001-l001-c010-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
178.63.23.47	hls-t001-l001-c011-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
148.251.136.4	hls-t001-l001-c012-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
116.202.209.95	hls-t001-l001-c013-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
116.202.209.94	hls-t001-l001-c014-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
88.198.49.115	hls-t001-l001-c015-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
178.63.23.162	hls-t001-l001-c016-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany

IP address	Domain	ISP	ASN	Location
178.63.23.162	hls-t001-l001-c017-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
88.99.26.222	hls-t001-l001-c018-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
116.202.208.241	hls-t001-l001-c019-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
116.202.208.238	hls-t001-l001-c020-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
176.9.4.121	hls-t001-l001-c021-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
176.9.5.49	hls-t001-l001-c022-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
116.202.192.118	hls-t001-l001-c023-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
178.63.71.62	hls-t001-l001-c024-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
195.201.181.174	hls-t001-l001-c025-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
176.9.7.51	hls-t001-l001-c026-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
195.201.246.84	hls-t001-l001-c027-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
116.202.192.58	hls-t001-l001-c028-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
176.9.5.54	hls-t001-l001-c029-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
178.63.18.158	hls-t001-l001-c030-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
116.202.209.94	hls-t001-l001-c031-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
116.202.213.44	hls-t001-l001-c032-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
116.202.209.250	hls-t001-l001-c033-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
136.243.134.172	hls-t001-l001-c034-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
116.202.192.121	hls-t001-l001-c035-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
116.202.245.248	hls-t001-l001-c036-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
46.4.17.184	hls-t001-l001-c037-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
116.202.192.98	hls-t001-l001-c038-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
116.202.232.123	hls-t001-l001-c039-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
159.69.79.238	hls-t001-l001-c040-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
144.76.139.202	hls-t001-l001-c041-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
78.46.86.183	hls-t001-l001-c042-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
116.202.209.216	hls-t001-l001-c043-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
116.202.192.119	hls-t001-l001-c044-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
116.202.192.120	hls-t001-l001-c045-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
176.9.4.183	hls-t001-l001-c046-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
116.202.209.211	hls-t001-l001-c047-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany
195.201.240.69	hls-t001-l001-c048-s001.embedcdn.cc	Hetzner Online GmbH	24940	Germany

Hdrezka infrastructure

IP address	Domain	ISP	ASN	Location
37.1.207.224	hdrezka.club	ISPIRIA Networks Ltd	50673 58061	Netherlands
104.24.120.192 104.24.121.192	hdrezka.co	CloudFlare Inc.	13335	United States
5.45.87.238	hdrezka.me	ISPIRIA Networks Ltd	50673 58061	Netherlands
82.221.104.145	rezka.ag	Advania Island ehf	50613	Iceland
37.1.206.186	hdrezka.name	ISPIRIA Networks Ltd	50673 58061	Netherlands
104.27.170.245 104.27.171.245	hdrezka.tv	CloudFlare Inc.	13335	United States
82.221.128.101	voidboost.net	Advania Island ehf	50613	Iceland
104.28.24.91 104.28.25.91	hdrezka-ag.com	CloudFlare Inc.	13335	United States
5.45.87.204	mrhdrezka.com	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.45.87.204	betahdrezka.com	ISPIRIA Networks Ltd	50673 58061	Netherlands
104.24.98.117 104.24.99.117	myhdrezka.com	CloudFlare Inc.	13335	United States
104.28.4.72 104.28.5.72	aghdrezka.com	CloudFlare Inc.	13335	United States
104.28.0.73 104.28.1.73	nuhdrezka.com	CloudFlare Inc.	13335	United States
5.45.64.213	instahdrezka.com	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.45.77.201	hdrezka-ag.net	ISPIRIA Networks Ltd	50673 58061	Netherlands
185.190.189.217	actinium.load.hdrezka-ag.net	LLC Mnogobyte	47328	Russia
185.190.189.229	aluminum.load.hdrezka-ag.net	LLC Mnogobyte	47328	Russia
176.58.54.75	argon.load.hdrezka-ag.net	LLC Mnogobyte	199251	Russia
77.220.172.53	asgard.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
77.220.172.53	asgard.stream.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
146.255.198.37	astatium.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
146.255.199.13	aura.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
146.255.198.21	aurum.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
77.220.172.131	bbs.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
77.220.172.139	beryllium.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
77.220.172.139	beryllium.stream.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
185.190.189.213	bohrium.load.hdrezka-ag.net	LLC Mnogobyte	47328	Russia
146.255.197.155	boron.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
176.58.51.197	buttercup.load.hdrezka-ag.net	LLC Mnogobyte	199251	Russia
146.255.198.213	cadmium.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia

IP address	Domain	ISP	ASN	Location
77.220.172.147	calcium.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
146.255.197.59	carbon.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
176.58.54.76	chlorine.load.hdrezka-ag.net	LLC Mnogobyte	199251	Russia
77.220.172.155	cobalt.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
77.220.172.163	cuprum.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
176.58.54.92	curium.load.hdrezka-ag.net	LLC Mnogobyte	199251	Russia
176.58.46.197	dagon.load.hdrezka-ag.net	LLC Mnogobyte	199251	Russia
146.255.198.221	dysprosium.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
146.255.198.221	dysprosium.stream.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
176.58.54.77	einsteinium.load.hdrezka-ag.net	LLC Mnogobyte	199251	Russia
146.255.199.37	elvis.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
146.255.199.37	elvis.stream.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
176.58.46.209	ember.load.hdrezka-ag.net	LLC Mnogobyte	199251	Russia
146.255.198.173	erbium.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
185.190.189.197	europium.load.hdrezka-ag.net	LLC Mnogobyte	47328	Russia
176.58.54.205	fermium.load.hdrezka-ag.net	LLC Mnogobyte	199251	Russia
77.220.172.77	fingerium.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
77.220.172.77	fingerium.stream.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
77.220.172.93	flerovium.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
77.220.172.93	flerovium.stream.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
146.255.199.61	flora.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
146.255.198.45	francium.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
146.255.198.61	gadolinium.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
77.220.172.101	gallium.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
77.220.172.101	gallium.stream.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
77.220.172.171	giza.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
77.220.172.171	giza.stream.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
176.58.46.205	grendel.load.hdrezka-ag.net	LLC Mnogobyte	199251	Russia
185.190.189.221	hassium.load.hdrezka-ag.net	LLC Mnogobyte	47328	Russia
77.220.172.116	holmium.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
176.58.53.74	indium.load.hdrezka-ag.net	LLC Mnogobyte	199251	Russia
146.255.198.13	iridium.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
146.255.198.13	iridium.stream.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
77.220.172.85	jointinum.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
77.220.172.85	jointinum.stream.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
176.58.53.80	kalium.load.hdrezka-ag.net	LLC Mnogobyte	199251	Russia
77.220.173.5	kurt.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
176.58.54.217	lawrencium.load.hdrezka-ag.net	LLC Mnogobyte	199251	Russia
176.58.54.209	livermorium.load.hdrezka-ag.net	LLC Mnogobyte	199251	Russia
176.58.48.48	load.hdrezka-ag.net	LLC Mnogobyte	199251	Russia

IP address	Domain	ISP	ASN	Location
146.255.198.253	loki.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
77.220.172.179	louvre.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
146.255.198.149	lutetium.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
146.255.198.149	lutetium.stream.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
146.255.198.245	magic.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
212.188.6.14	magnesium.load.hdrezka-ag.net	MTS PJSC	8359	Russia
176.58.46.201	midgard.load.hdrezka-ag.net	LLC Mnogobyte	199251	Russia
176.58.46.213	mimin.load.hdrezka-ag.net	LLC Mnogobyte	199251	Russia
146.255.199.45	mortis.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
185.190.189.249	moscovium.load.hdrezka-ag.net	LLC Mnogobyte	47328	Russia
146.255.198.229	nailium.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
146.255.198.229	nailium.stream.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
185.190.189.253	natrium.load.hdrezka-ag.net	LLC Mnogobyte	47328	Russia
146.255.198.165	neon.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
185.190.189.245	neptunium.load.hdrezka-ag.net	LLC Mnogobyte	47328	Russia
146.255.198.237	nickel.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
146.255.199.53	nika.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
77.220.172.252	niobium.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
77.220.172.195	nitrogen.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
146.255.199.5	osiris.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
146.255.197.69	osmium.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
146.255.197.235	oxygen.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
77.220.173.13	ozzy.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
77.220.172.21	pe.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
77.220.172.203	petra.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
146.255.198.189	phosphorus.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
146.255.198.189	phosphorus.stream.hdrezka-ag.net	LLC Mnogobyte	42632	Russia
146.255.198.5	platinum.load.hdrezka-ag.net	LLC Mnogobyte	42632	Russia

HDVB

HDVB is the second most popular CDN. As at late 2019, 38% of pirate streaming services used this CDN.

Video traffic comes from regularly updated domains: *tesswalton. pw, *bernardjordan.pw, *elmerwatson.pw, *alfredcurry.pw, *quinn-nash.pw, *frankfoley.pw, *rexhammond.pw, *janenoble.pw, *nadia-pattel.pw, etc. The domains are generated mainly in the .pw domain zone according to the template vb{some_number}{random_name_surname}.pw. It also hosts video players.

The CDN's domains are regularly blocked by Roskomnadzor (Russia's Federal Service for Supervision of Communications, Information Technology and Mass Media) in accordance with the procedure established in Article 15.2 of Russian Federal Law No. 149-FZ of July 27, 2006 "On Information, Information Technologies, and Protection of Information," which leads to new ones being created constantly. The domains are changed using a script published on GitHub (https://partnercoll.github.io/actualize.js).

IP address	Domain	ISP	ASN	Location
198.16.66.22	cdn-s.vb17110frankfoley.pw	FDCservers.net	174 30058	United States
50.7.236.13	cdn062.vb17110frankfoley.pw	FDCservers.net	174 30058	United States
5.61.59.245	vid1586770147163.vb17110frankfoley.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.59.245	vid1587050469061.vb17110frankfoley.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.59.245	vid1587472644353.vb17110frankfoley.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.59.245	vid1587475512511.vb17110frankfoley.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.59.245	vid1587476524362.vb17110frankfoley.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.59.245	vid1587478250266.vb17110frankfoley.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.56.147	hdvb.info	ISPIRIA Networks Ltd	50673 58061	Netherlands
198.16.67.58	cdn-b.hdvb.info	FDCservers.net	174 30058	United States
198.16.67.58	cdn-s.hdvb.info	FDCservers.net	174 30058	United States
198.16.67.58	cdn-t.hdvb.info	FDCservers.net	174 30058	United States
198.16.67.58	cdn-z.hdvb.info	FDCservers.net	174 30058	United States
198.16.67.58	cdn0.hdvb.info	FDCservers.net	174 30058	United States
194.59.142.130	cdn074.hdvb.info	Melbikomas UAB	56630	Netherlands
194.59.142.178	cdn075.hdvb.info	Melbikomas UAB	56630	Netherlands
50.7.230.242	cdn3.hdvb.info	FDCservers.net	174 30058	United States
50.7.231.242	cdn4.hdvb.info	FDCservers.net	174 30058	United States
50.7.236.11	cdn5.hdvb.info	FDCservers.net	174 30058	United States
213.226.69.210	cdn51.hdvb.info	Melbikomas UAB	56630	Netherlands
50.7.236.4	cdn7.hdvb.info	FDCservers.net	174 30058	United States
37.1.204.81	cdn0.vb17106cecilgregory.pw	Serverius Holding B.V.	50673	Netherlands
50.7.236.4	cdn7.vb17106cecilgregory.pw	FDCservers.net	174 30058	United States
5.61.56.146	vid1577265532464.vb17106cecilgregory.pw	Serverius Holding B.V.	50673	Netherlands
198.16.66.22	cdn0.vb17107rexhammond.pw	FDCservers.net	174 30058	United States
93.189.61.202	cdn6.vb17107rexhammond.pw	Melbikomas UAB	56630	Netherlands
5.61.57.201	vid1577992399.vb17107rexhammond.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.57.201	vid1578595030063.vb17107rexhammond.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands

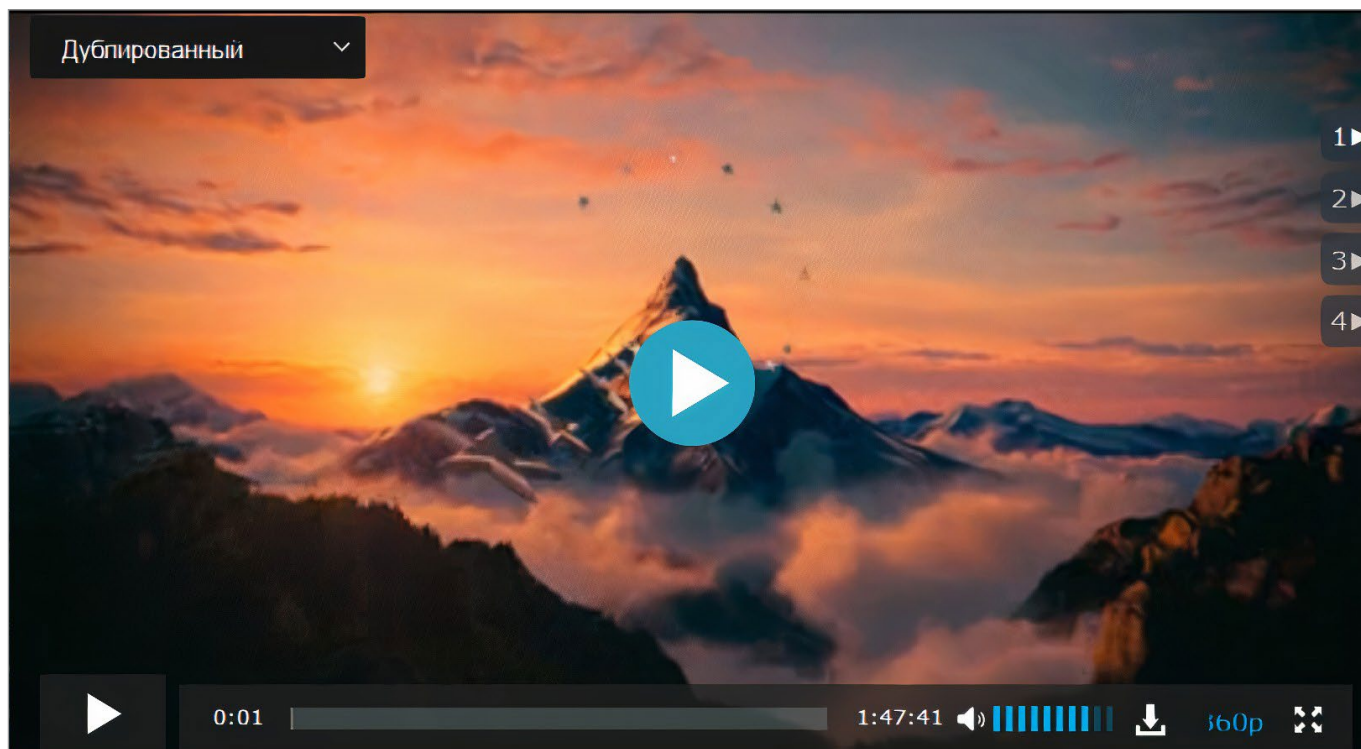| IP address	Domain	ISP	ASN	Location
5.61.57.201	vid1578616870.vb17107rexhammond.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.57.201	vid1578758734.vb17107rexhammond.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.57.201	vid1579679408.vb17107rexhammond.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.57.201	vid1580059869.vb17107rexhammond.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.57.201	vid1580305928.vb17107rexhammond.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
198.16.66.22	cdn0.vb17108janenoble.pw	FDCservers.net	174 30058	United States
93.189.61.228	cdn072.vb17108janenoble.pw	Melbikomas UAB	56630	Netherlands
50.7.230.242	cdn3.vb17108janenoble.pw	FDCservers.net	174 30058	United States
213.226.69.210	cdn51.vb17108janenoble.pw	Melbikomas UAB	56630	Netherlands
93.189.61.202	cdn6.vb17108janenoble.pw	Melbikomas UAB	56630	Netherlands
5.61.58.238	vb17108janenoble.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.238	vid1580540888520.vb17108janenoble.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.238	vid1580540942515.vb17108janenoble.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.238	vid1580683679983.vb17108janenoble.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.238	vid1581008549.vb17108janenoble.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.238	vid1581066611933.vb17108janenoble.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.238	vid1582631670127.vb17108janenoble.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.238	vid1582659968.vb17108janenoble.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.238	vid1582889689.vb17108janenoble.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.238	vid1583155595210.vb17108janenoble.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
50.7.236.13	cdn062.vb17109nadiapattel.pw	FDCservers.net	174 30058	United States
93.189.61.228	cdn072.vb17109nadiapattel.pw	Melbikomas UAB	56630	Netherlands
194.59.142.130	cdn074.vb17109nadiapattel.pw	Melbikomas UAB	56630	Netherlands
194.59.142.178	cdn075.vb17109nadiapattel.pw	Melbikomas UAB	56630	Netherlands
93.189.61.202	cdn6.vb17109nadiapattel.pw	Melbikomas UAB	56630	Netherlands
5.61.58.238	vid1583682315750.vb17109nadiapattel.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.238	vid1584471132619.vb17109nadiapattel.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.238	vid1584537369.vb17109nadiapattel.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands

IP address	Domain	ISP	ASN	Location
5.61.58.238	vid1584612206933.vb17109nadiapattel.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.238	vid1584981188.vb17109nadiapattel.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.238	vid1585053700.vb17109nadiapattel.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.238	vid1585133929.vb17109nadiapattel.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.238	vid1585736220.vb17109nadiapattel.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.238	vid1586009177579.vb17109nadiapattel.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.238	vid1586068643.vb17109nadiapattel.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.238	vid1586193986.vb17109nadiapattel.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.238	vid1586204553.vb17109nadiapattel.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.238	vid1586268356456.vb17109nadiapattel.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.238	vid1586268630763.vb17109nadiapattel.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.238	vid1586268825429.vb17109nadiapattel.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.238	vid1586269053884.vb17109nadiapattel.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.238	vid1586269672547.vb17109nadiapattel.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.238	vid1586269715315.vb17109nadiapattel.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.238	vid1586270273297.vb17109nadiapattel.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.238	vid1586276799.vb17109nadiapattel.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.238	vid1586329315202.vb17109nadiapattel.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.238	vid1586336901423.vb17109nadiapattel.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.238	vid1586340985437.vb17109nadiapattel.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.238	vid1586527818006.vb17109nadiapattel.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.238	vid1586528408828.vb17109nadiapattel.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
5.61.58.197	vb10555nyashmyash.pw	ISPIRIA Networks Ltd	50673 58061	Netherlands
185.199.108.153 185.199.109.153 185.199.111.153 185.199.110.153	partnercoll.github.io	GitHub, Inc.	36459	United States

VideoCDN

VideoCDN is the third most popular CDN. As at late 2019, 33% of pirate streaming services used this CDN.

The main domain is videocdn.tv.

The content is hosted on technical domains with the format *.cloud.hotlan.by.
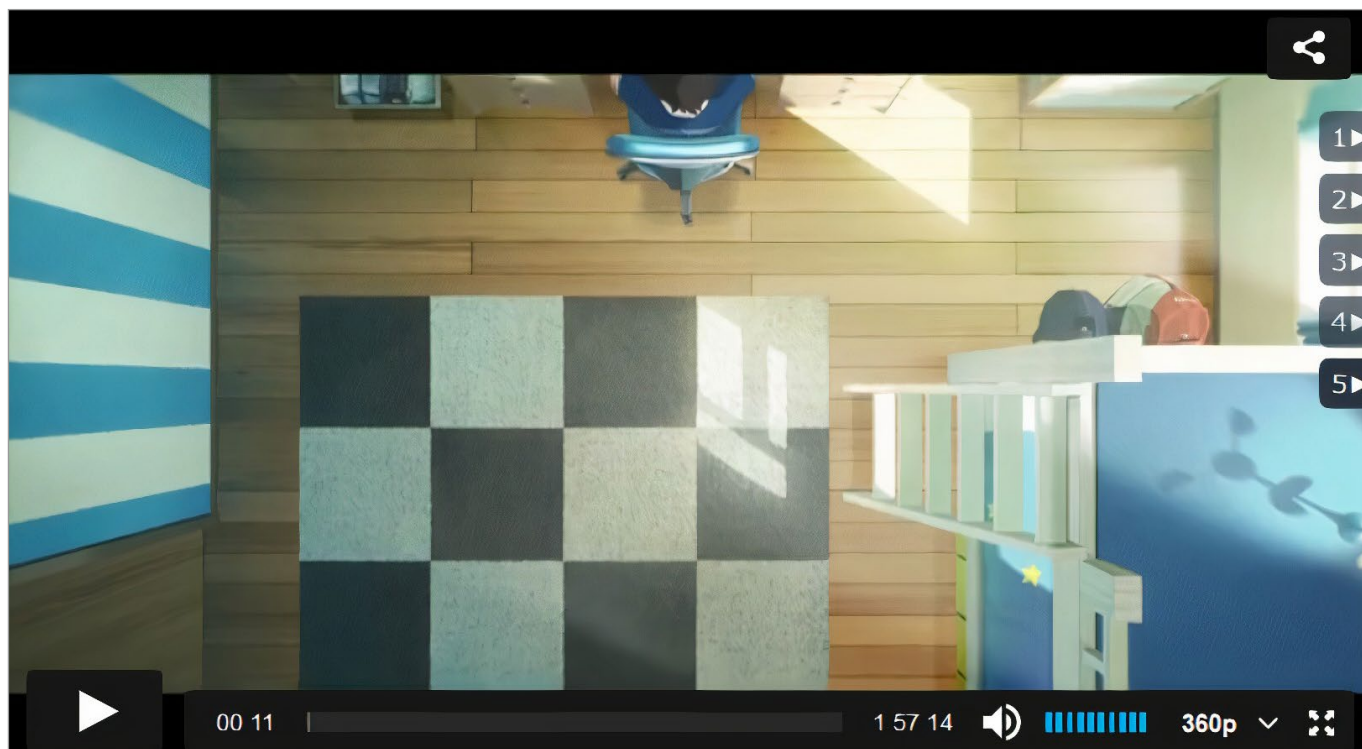
IP address	Domain	ISP	ASN	Location
77.220.172.51	asgard.cloud.hotlan.by	LLC Mnogobyte	42632	Russia
146.255.198.35	astatium.cloud.hotlan.by	LLC Mnogobyte	42632	Russia
146.255.198.19	aurum.cloud.hotlan.by	LLC Mnogobyte	42632	Russia
146.255.199.11	aura.cloud.hotlan.by	LLC Mnogobyte	42632	Russia
77.220.172.140	beryllium.cloud.hotlan.by	LLC Mnogobyte	42632	Russia
146.255.198.211	cadmium.cloud.hotlan.by	LLC Mnogobyte	42632	Russia
77.220.172.148	calcium.cloud.hotlan.by	LLC Mnogobyte	42632	Russia
146.255.197.61	carbon.cloud.hotlan.by	LLC Mnogobyte	42632	Russia
176.58.48.48	cloud.hotlan.by	LLC Mnogobyte	199251	Russia
146.255.198.219	dysprosium.cloud.hotlan.by	LLC Mnogobyte	42632	Russia
146.255.199.35	elvis.cloud.hotlan.by	LLC Mnogobyte	42632	Russia
146.255.198.171	erbium.cloud.hotlan.by	LLC Mnogobyte	42632	Russia
77.220.172.75	fingerium.cloud.hotlan.by	LLC Mnogobyte	42632	Russia
77.220.172.91	flerovium.cloud.hotlan.by	LLC Mnogobyte	42632	Russia
146.255.198.43	francium.cloud.hotlan.by	LLC Mnogobyte	42632	Russia
146.255.198.59	gadolinium.cloud.hotlan.by	LLC Mnogobyte	42632	Russia
77.220.172.99	gallium.cloud.hotlan.by	LLC Mnogobyte	42632	Russia
77.220.172.172	giza.cloud.hotlan.by	LLC Mnogobyte	42632	Russia
146.255.198.11	iridium.cloud.hotlan.by	LLC Mnogobyte	42632	Russia
77.220.172.83	jointinum.cloud.hotlan.by	LLC Mnogobyte	42632	Russia
77.220.172.180	louvre.cloud.hotlan.by	LLC Mnogobyte	42632	Russia
146.255.198.147	lutetium.cloud.hotlan.by	LLC Mnogobyte	42632	Russia
146.255.198.243	magic.cloud.hotlan.by	LLC Mnogobyte	42632	Russia
146.255.198.227	nailium.cloud.hotlan.by	LLC Mnogobyte	42632	Russia
146.255.198.235	nickel.cloud.hotlan.by	LLC Mnogobyte	42632	Russia
77.220.172.250	niobium.cloud.hotlan.by	LLC Mnogobyte	42632	Russia
77.220.172.196	nitrogen.cloud.hotlan.by	LLC Mnogobyte	42632	Russia
146.255.199.3	osiris.cloud.hotlan.by	LLC Mnogobyte	42632	Russia
146.255.197.67	osmium.cloud.hotlan.by	LLC Mnogobyte	42632	Russia
77.220.172.19	pe.cloud.hotlan.by	LLC Mnogobyte	42632	Russia
77.220.172.204	petra.cloud.hotlan.by	LLC Mnogobyte	42632	Russia
104.27.134.40 104.27.135.40	0537.videocdn.pw	CloudFlare Inc.	13335	United States
104.24.124.147 104.24.125.147	10.videocdn.ca	CloudFlare Inc.	13335	United States
104.27.134.40 104.27.135.40	10.videocdn.pw	CloudFlare Inc.	13335	United States
104.27.134.40 104.27.135.40	101.videocdn.pw	CloudFlare Inc.	13335	United States
104.27.134.40 104.27.135.40	107.videocdn.pw	CloudFlare Inc.	13335	United States
104.24.106.73 104.24.107.73	11.videocdn.so	CloudFlare Inc.	13335	United States

IP address	Domain	ISP	ASN	Location
104.27.134.40 104.27.135.40	12.videocdn.pw	CloudFlare Inc.	13335	United States
104.24.106.73 104.24.107.73	13.videocdn.so	CloudFlare Inc.	13335	United States
104.24.106.73 104.24.107.73	14.videocdn.so	CloudFlare Inc.	13335	United States
104.27.134.40 104.27.135.40	1axammchjvyj.videocdn.pw	CloudFlare Inc.	13335	United States
104.27.134.40 104.27.135.40	2.videocdn.pw	CloudFlare Inc.	13335	United States
104.27.134.40 104.27.135.40	200.videocdn.pw	CloudFlare Inc.	13335	United States
104.27.134.40 104.27.135.40	201.videocdn.pw	CloudFlare Inc.	13335	United States
104.27.134.40 104.27.135.40	202.videocdn.pw	CloudFlare Inc.	13335	United States
104.27.134.40 104.27.135.40	203.videocdn.pw	CloudFlare Inc.	13335	United States
104.27.134.40 104.27.135.40	204.videocdn.pw	CloudFlare Inc.	13335	United States
104.27.134.40 104.27.135.40	205.videocdn.pw	CloudFlare Inc.	13335	United States
104.27.134.40 104.27.135.40	206.videocdn.pw	CloudFlare Inc.	13335	United States
104.27.134.40 104.27.135.40	207.videocdn.pw	CloudFlare Inc.	13335	United States
104.27.134.40 104.27.135.40	210.videocdn.pw	CloudFlare Inc.	13335	United States
104.24.106.73 104.24.107.73	25.videocdn.so	CloudFlare Inc.	13335	United States
104.27.134.40 104.27.135.40	2571112.videocdn.pw	CloudFlare Inc.	13335	United States
104.24.106.73 104.24.107.73	28.videocdn.so	CloudFlare Inc.	13335	United States
104.24.106.73 104.24.107.73	29.videocdn.so	CloudFlare Inc.	13335	United States
104.27.134.40 104.27.135.40	3.videocdn.pw	CloudFlare Inc.	13335	United States
104.24.106.73 104.24.107.73	30.videocdn.so	CloudFlare Inc.	13335	United States
104.27.134.40 104.27.135.40	301.videocdn.pw	CloudFlare Inc.	13335	United States
104.27.134.40 104.27.135.40	302.videocdn.pw	CloudFlare Inc.	13335	United States
104.27.134.40 104.27.135.40	303.videocdn.pw	CloudFlare Inc.	13335	United States
104.27.134.40 104.27.135.40	7132.videocdn.pw	CloudFlare Inc.	13335	United States
37.1.223.227	videocdn.tv	ISPIRIA Networks Ltd	50673 58061	Netherlands
104.24.106.73 104.24.107.73	videocdn.so	CloudFlare Inc.	13335	United States
104.24.124.147 104.24.125.147	videocdn.ca	CloudFlare Inc.	13335	United States

Kodik

This CDN is mainly used for cartoons and Asian films and TV series.

The content is hosted on technical domains with the format *.get. kodik-storage.com.

IP address	Domain	ISP	ASN	Location
185.190.189.215	actinium.get.kodik-storage.com	LLC Mnogobyte	47328	Netherlands
185.190.189.227	aluminum.get.kodik-storage.com	LLC Mnogobyte	47328	Netherlands
176.58.54.194	argon.get.kodik-storage.com	LLC Mnogobyte	199251	Russia
77.220.172.51	asgard.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
146.255.198.35	astatium.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
146.255.198.19	aurum.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
77.220.172.132	bbs.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
77.220.172.140	beryllium.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
185.190.189.211	bohrium.get.kodik-storage.com	LLC Mnogobyte	47328	Netherlands
146.255.197.156	boron.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
176.58.51.195	buttercup.get.kodik-storage.com	LLC Mnogobyte	199251	Russia
146.255.198.211	cadmium.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
77.220.172.148	calcium.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
146.255.197.61	carbon.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
176.58.54.195	chlorine.get.kodik-storage.com	LLC Mnogobyte	199251	Russia
77.220.172.156	cobalt.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
77.220.172.164	cuprum.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
176.58.54.90	curium.get.kodik-storage.com	LLC Mnogobyte	199251	Russia
146.255.198.219	dysprosium.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
176.58.54.69	einsteinium.get.kodik-storage.com	LLC Mnogobyte	199251	Russia
146.255.199.35	elvis.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
176.58.46.207	ember.get.kodik-storage.com	LLC Mnogobyte	199251	Russia
146.255.198.171	erbium.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
185.190.189.195	europium.get.kodik-storage.com	LLC Mnogobyte	47328	Netherlands
176.58.54.203	fermium.get.kodik-storage.com	LLC Mnogobyte	199251	Russia
77.220.172.75	fingerium.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
77.220.172.91	flerovium.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
146.255.199.59	flora.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
146.255.198.43	francium.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
146.255.198.59	gadolinium.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
77.220.172.99	gallium.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
176.58.48.48	get.kodik-cdn.com	LLC Mnogobyte	199251	Russia
176.58.48.48	get.kodik-storage.com	LLC Mnogobyte	199251	Russia
77.220.172.172	giza.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
176.58.46.203	grendel.get.kodik-storage.com	LLC Mnogobyte	199251	Russia
185.190.189.219	hassium.get.kodik-storage.com	LLC Mnogobyte	47328	Netherlands
77.220.172.117	holmium.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
146.255.198.11	iridium.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
77.220.172.83	jointinum.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
176.58.53.82	kalium.get.kodik-storage.com	LLC Mnogobyte	199251	Russia

IP address	Domain	ISP	ASN	Location
77.220.173.3	kurt.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
176.58.54.207	livermorium.get.kodik-storage.com	LLC Mnogobyte	199251	Russia
77.220.172.180	louvre.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
146.255.198.147	lutetium.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
146.255.198.243	magic.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
212.188.6.12	magnesium.get.kodik-storage.com	PJSC MTS	8359	Russia
176.58.46.199	midgard.get.kodik-storage.com	LLC Mnogobyte	199251	Russia
176.58.46.211	mimin.get.kodik-storage.com	LLC Mnogobyte	199251	Russia
146.255.198.227	nailium.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
185.190.189.251	natrium.get.kodik-storage.com	LLC Mnogobyte	47328	Netherlands
146.255.198.163	neon.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
185.190.189.243	neptunium.get.kodik-storage.com	LLC Mnogobyte	47328	Netherlands
146.255.199.51	nika.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
77.220.172.250	niobium.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
77.220.172.196	nitrogen.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
146.255.197.67	osmium.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
146.255.197.236	oxygen.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
77.220.173.11	ozzy.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
77.220.172.19	pe.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
77.220.172.204	petra.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
146.255.198.189	phosphorus.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
146.255.198.3	platinum.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
77.220.172.227	plumbum.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
176.58.53.68	plutonium.get.kodik-storage.com	LLC Mnogobyte	199251	Russia
146.255.198.27	polonium.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
77.220.172.212	potassium.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
185.190.189.203	promethium.get.kodik-storage.com	LLC Mnogobyte	47328	Netherlands
185.190.189.239	protactinium.get.kodik-storage.com	LLC Mnogobyte	47328	Netherlands
146.255.198.51	radium.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
176.58.46.215	rock.get.kodik-storage.com	LLC Mnogobyte	199251	Russia
146.255.199.19	rocker.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
176.58.53.86	ruthenium.get.kodik-storage.com	LLC Mnogobyte	199251	Russia
77.220.172.43	rutherfordium.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
185.190.189.199	samarium.get.kodik-storage.com	LLC Mnogobyte	47328	Netherlands
176.58.54.199	scandium.get.kodik-storage.com	LLC Mnogobyte	199251	Russia
185.190.189.223	seaborgium.get.kodik-storage.com	LLC Mnogobyte	47328	Netherlands
176.58.53.76	silicium.get.kodik-storage.com	LLC Mnogobyte	199251	Russia
77.220.172.67	skinium.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
146.255.198.179	sodium.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
185.190.189.207	stannum.get.kodik-storage.com	LLC Mnogobyte	47328	Netherlands

IP address	Domain	ISP	ASN	Location
77.220.172.125	stibium.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
77.220.172.236	stonehenge.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
146.255.198.195	strontium.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
185.190.189.235	technetium.get.kodik-storage.com	LLC Mnogobyte	47328	Netherlands
176.58.52.69	tellurium.get.kodik-storage.com	LLC Mnogobyte	199251	Russia
146.255.198.139	terbium.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
77.220.172.187	thallium.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
185.190.189.231	thorium.get.kodik-storage.com	LLC Mnogobyte	47328	Netherlands
77.220.172.59	tiberium.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
176.58.53.90	titanium.get.kodik-storage.com	LLC Mnogobyte	199251	Russia
146.255.198.131	ununbium.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
146.255.198.155	uranium.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
77.220.172.244	vegas.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
77.220.172.27	vespene.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
146.255.198.203	yttrium.get.kodik-storage.com	LLC Mnogobyte	42632	Russia
185.129.100.109	kodik.cc	DDOS-GUARD LTD	57724	Russia
185.129.100.109	kodik.online	DDOS-GUARD LTD	57724	Russia
185.129.100.109	hdrise.com	DDOS-GUARD LTD	57724	Russia
185.129.100.109	kodik.biz	DDOS-GUARD LTD	57724	Russia
185.129.100.109	kodikdb.com	DDOS-GUARD LTD	57724	Russia

Videoframe

The main domain is iframe.video.

The content is delivered through technical domains with the format *.cdn.videoframe.space.

The CDN also has its own video streaming service, rknfilms.com (formerly smotrihd.com).

IP address	Domain	ISP	ASN	Location
83.222.106.83	iframe.video	LLC Mnogobyte	42632	Russia
212.76.137.114	videoframe.space	LLC Mnogobyte	42632	Russia
176.58.48.48	cdn.videoframe.space	LLC Mnogobyte	199251	Russia
176.58.54.194	argon.cdn.videoframe.space	LLC Mnogobyte	199251	Russia
146.255.198.35	astatium.cdn.videoframe.space	LLC Mnogobyte	42632	Russia
77.220.172.140	beryllium.cdn.videoframe.space	LLC Mnogobyte	42632	Russia
146.255.197.156	boron.cdn.videoframe.space	LLC Mnogobyte	42632	Russia
77.220.172.148	calcium.cdn.videoframe.space	LLC Mnogobyte	42632	Russia
146.255.197.61	carbon.cdn.videoframe.space	LLC Mnogobyte	42632	Russia
77.220.172.99	gallium.cdn.videoframe.space	LLC Mnogobyte	42632	Russia
77.220.172.172	giza.cdn.videoframe.space	LLC Mnogobyte	42632	Russia
176.58.54.200	krypton.cdn.videoframe.space	LLC Mnogobyte	199251	Russia
77.220.172.180	louvre.cdn.videoframe.space	LLC Mnogobyte	42632	Russia
212.188.6.12	magnesium.cdn.videoframe.space	PJSC MTS	8359	Russia
146.255.198.163	neon.cdn.videoframe.space	LLC Mnogobyte	42632	Russia
77.220.172.196	nitrogen.cdn.videoframe.space	LLC Mnogobyte	42632	Russia
146.255.197.236	oxygen.cdn.videoframe.space	LLC Mnogobyte	42632	Russia
77.220.172.204	petra.cdn.videoframe.space	LLC Mnogobyte	42632	Russia
146.255.198.189	phosphorus.cdn.videoframe.space	LLC Mnogobyte	42632	Russia
77.220.172.227	plumbum.cdn.videoframe.space	LLC Mnogobyte	42632	Russia
77.220.172.212	potassium.cdn.videoframe.space	LLC Mnogobyte	42632	Russia
146.255.199.75	rubidium.cdn.videoframe.space	LLC Mnogobyte	42632	Russia
146.255.198.179	sodium.cdn.videoframe.space	LLC Mnogobyte	42632	Russia
77.220.172.236	stonehenge.cdn.videoframe.space	LLC Mnogobyte	42632	Russia
146.255.198.195	strontium.cdn.videoframe.space	LLC Mnogobyte	42632	Russia
77.220.172.187	thallium.cdn.videoframe.space	LLC Mnogobyte	42632	Russia
146.255.198.131	ununbium.cdn.videoframe.space	LLC Mnogobyte	42632	Russia
77.220.172.244	vegas.cdn.videoframe.space	LLC Mnogobyte	42632	Russia
83.222.96.28	rknfilms.com	LLC Mnogobyte	42632	Russia
212.76.138.158	frameloader.xyz	LLC Mnogobyte	42632	Russia
212.76.138.154	smotrihd.com	LLC Mnogobyte	42632	Russia

Bazon

The main domain is bazon.to.

Videos are streamed using technical domains with the format
*.bazonserver.site, *.bazon.site and *.bazon.to.
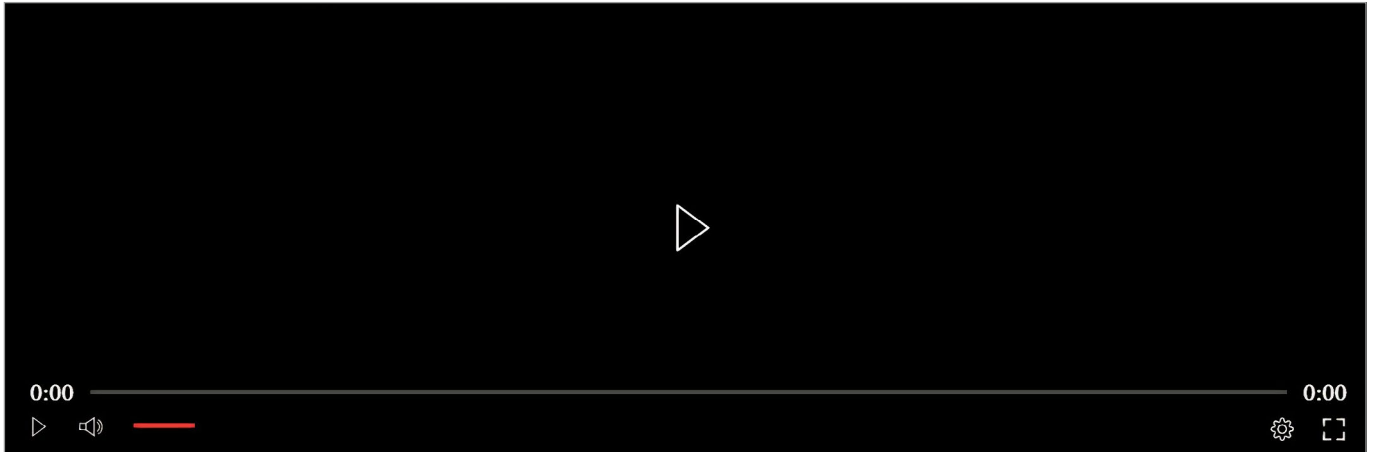
IP address	Domain	ISP	ASN	Location
95.215.205.213	yohoho.bazon.site	FAFBO Private Enterprise	204601	Netherlands
50.7.184.42	atom.bazonserver.site	FDCservers.net	174 30058	United States
50.7.222.114	alpha.bazonserver.site	FDCservers.net	174 30058	United States
50.7.115.3	beta.bazonserver.site	FDCservers.net	174 30058	United States
50.7.222.114	higgs.bazonserver.site	FDCservers.net	174 30058	United States
50.7.173.90	red.bazonserver.site	FDCservers.net	174 30058	United States
95.215.205.213	bazon.cc	FAFBO Private Enterprise	204601	Netherlands
95.215.205.213	bazon.to	FAFBO Private Enterprise	204601	Netherlands
104.24.108.197 104.24.109.197	videobase.ml	CloudFlare Inc.	13335	United States
95.215.205.213	czx.bazon.site	FAFBO Private Enterprise	204601	Netherlands
95.215.205.213	v1576210739.bazon.to	FAFBO Private Enterprise	204601	Netherlands
95.215.205.213	v1576240051.bazon.to	FAFBO Private Enterprise	204601	Netherlands
95.215.205.213	v1577426573.bazon.to	FAFBO Private Enterprise	204601	Netherlands
95.215.205.213	v1578068587.bazon.site	FAFBO Private Enterprise	204601	Netherlands
95.215.205.213	v1578668593.bazon.site	FAFBO Private Enterprise	204601	Netherlands
95.215.205.213	v1581401604.bazon.site	FAFBO Private Enterprise	204601	Netherlands
95.215.205.213	v1581404376.bazon.site	FAFBO Private Enterprise	204601	Netherlands
95.215.205.213	v1584421543.bazon.site	FAFBO Private Enterprise	204601	Netherlands
95.215.205.213	v1585317741.bazon.site	FAFBO Private Enterprise	204601	Netherlands
95.215.205.213	v1585659568.bazon.site	FAFBO Private Enterprise	204601	Netherlands
95.215.205.213	v1586362728.bazon.site	FAFBO Private Enterprise	204601	Netherlands
95.215.205.213	v1586712062.bazon.site	FAFBO Private Enterprise	204601	Netherlands
95.215.205.213	v1587343332.bazon.site	FAFBO Private Enterprise	204601	Netherlands
95.215.205.213	v1587472635.bazon.site	FAFBO Private Enterprise	204601	Netherlands
95.215.205.213	higgs.bazon.to	FAFBO Private Enterprise	204601	Netherlands

Ustore

The main domain is ustore.bz.

Videos are streamed using technical domains with the format
*.u-cdn.org and *. u-stream.in.
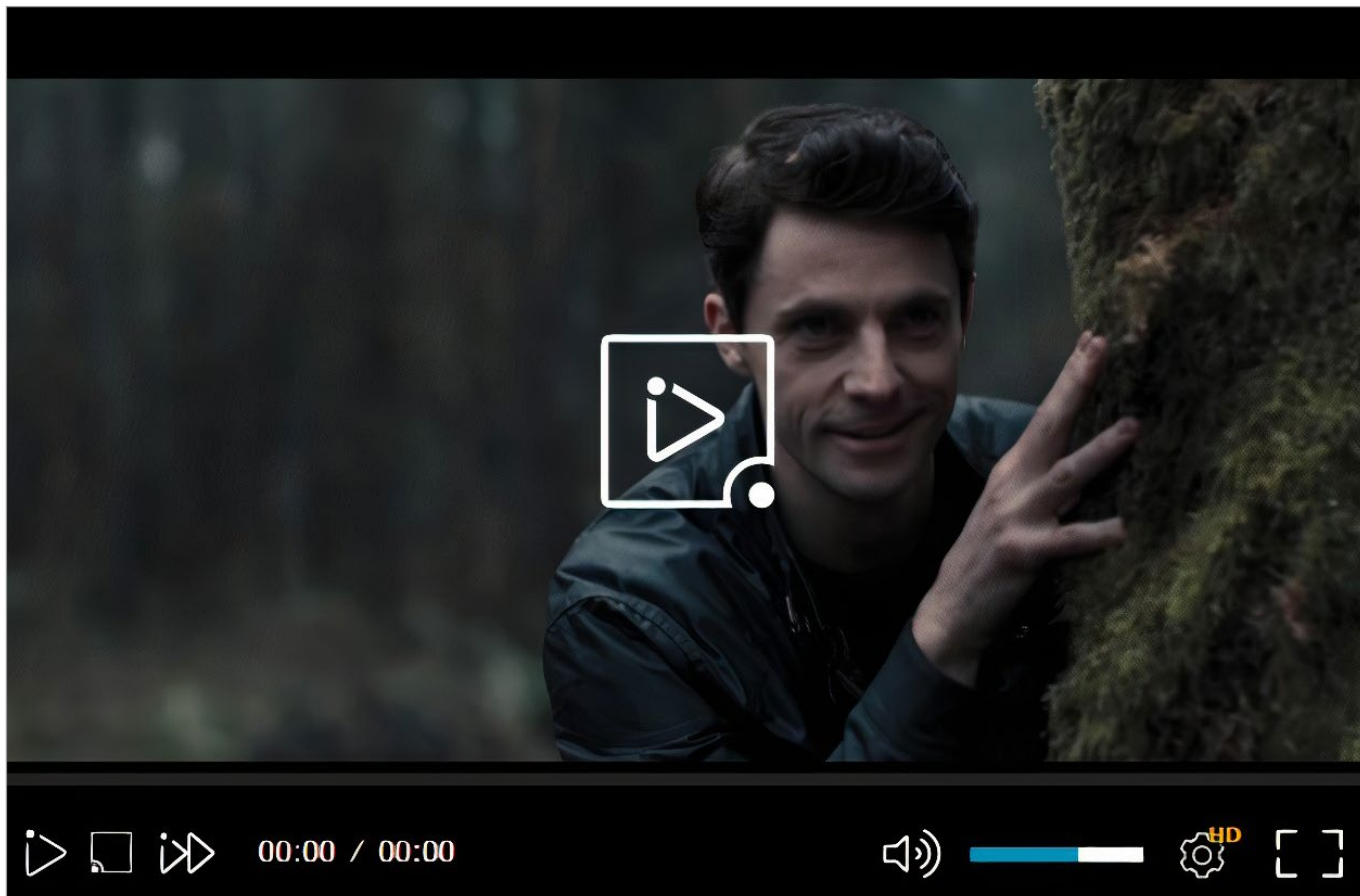
IP address	Domain	ISP	ASN	Location
185.128.41.59	start.u-play.pro	Grupo Panaglobal 15 S.A	39782	Switzerland
185.128.41.58	ustore.bz	Grupo Panaglobal 15 S.A	39782	Switzerland
109.236.84.105	ct1.u-cdn.org	WorldStream B.V.	49981	Netherlands
185.132.133.99	ct2.u-cdn.org	WorldStream B.V.	49981	Netherlands
185.132.179.144	ct3.u-cdn.org	WorldStream B.V.	49981	Netherlands
185.180.221.167	ct4.u-cdn.org	WorldStream B.V.	49981	Netherlands
190.2.153.136	ct5.u-cdn.org	WorldStream B.V.	49981	Netherlands
212.8.248.100	ct6.u-cdn.org	WorldStream B.V.	49981	Netherlands
185.21.60.72	ct7.u-cdn.org	WorldStream B.V.	49981	Netherlands
217.23.8.221	ct8.u-cdn.org	WorldStream B.V.	49981	Netherlands
89.38.99.46	ct9.u-cdn.org	WorldStream B.V.	49981	Netherlands
149.202.203.79	s1.u-cdn.org	OVH SAS	16276	France
193.70.13.83	s2.u-cdn.org	OVH SAS	16276	France
193.70.13.83	s3.u-cdn.org	OVH SAS	16276	France
193.70.13.83	s4.u-cdn.org	OVH SAS	16276	France
149.202.203.79	s5.u-cdn.org	OVH SAS	16276	France
193.70.13.83	s6.u-cdn.org	OVH SAS	16276	France
193.70.13.76	s7.u-cdn.org	OVH SAS	16276	France
190.2.143.109	download1.u-cdn.xyz	WorldStream B.V.	49981	Netherlands
50.7.172.138	s1.u-cdn.xyz	FDCservers.net	174 30058	United States
109.236.84.105	ct1.u-cdn.xyz	WorldStream B.V.	49981	Netherlands
185.132.133.99	ct2.u-cdn.xyz	WorldStream B.V.	49981	Netherlands
185.132.179.144	ct3.u-cdn.xyz	WorldStream B.V.	49981	Netherlands
176.58.48.48	u-stream.in	MnogoByte LLC	199251	Russia
77.220.172.83	jointinum.u-stream.in	MnogoByte LLC	42632	Russia

Alloha

The main domain is alloha.tv.

Videos are streamed using technical domains with the format *.streamalloha.live.

IP address	Domain	ISP	ASN	Location
94.130.136.80	sbl-99-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
138.201.130.77	sbl-98-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
46.4.69.7	sbl-97-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
148.251.123.13	sbl-96-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
148.251.188.234	sbl-95-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
138.201.130.75	sbl-94-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
176.9.30.234	sbl-93-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
195.201.161.122	sbl-92-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
178.63.44.171	sbl-91-v3.streamalloha.live	Hetzner Online GmbH	24940	Germany
138.201.202.23	sbl-90-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
116.202.223.19	sbl-89-v3.streamalloha.live	Hetzner Online GmbH	24940	Germany
138.201.59.92	sbl-88-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
78.46.22.15	sbl-87-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
138.201.82.100	sbl-86-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
138.201.205.160	sbl-85-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
94.130.10.154	sbl-84-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
88.99.147.100	sbl-83-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
138.201.66.2	sbl-82-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
88.99.70.178	sbl-81-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
88.99.69.7	sbl-80-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
116.202.208.147	sbl-79-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
178.63.84.248	sbl-78-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
176.9.114.66	sbl-77-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
176.9.84.74	sbl-76-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
51.83.238.224	sbl-75-v2.streamalloha.live	OVH Sp. z o. o.	16276	France
50.7.144.2	sbl-74-v2.streamalloha.live	FDCservers.net	174 30058	United States
50.7.231.114	sbl-73-v2.streamalloha.live	FDCservers.net	174 30058	United States
5.9.137.44	sbl-72-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
5.9.123.119	sbl-71-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
5.9.65.179	sbl-70-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
46.4.95.146	sbl-69-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
144.76.139.3	sbl-68-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
144.76.138.243	sbl-67-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
144.76.30.215	sbl-66-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
78.46.174.189	sbl-65-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
5.9.137.30	sbl-64-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
144.76.32.230	sbl-63-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
144.76.71.134	sbl-62-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
144.76.75.239	sbl-61-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany

IP address	Domain	ISP	ASN	Location
144.76.42.209	sbl-60-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
144.76.163.81	sbl-59-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
46.4.123.45	sbl-58-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
51.89.227.119	sbl-57-v2.streamalloha.live	OVH Ltd	16276	France
51.178.63.160	sbl-56-v2.streamalloha.live	OVH SAS	16276	France
95.216.12.121	sbl-55-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
95.216.13.96	sbl-54-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
176.9.73.215	sbl-53-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
5.9.121.34	sbl-52-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
176.9.85.43	sbl-51-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
176.9.111.47	sbl-50-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
176.9.48.147	sbl-49-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
176.9.45.67	sbl-48-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
144.76.91.102	sbl-47-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
5.9.19.55	sbl-46-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
144.76.0.240	sbl-45-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
148.251.187.43	sbl-44-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
144.76.173.217	sbl-43-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
144.76.157.166	sbl-42-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
144.76.85.148	sbl-41-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
144.76.94.123	sbl-40-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
88.198.35.164	sbl-39-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
176.9.83.226	sbl-38-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
144.76.16.227	sbl-37-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
5.9.136.122	sbl-36-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
5.9.62.125	sbl-35-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
176.9.70.182	sbl-33-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
88.198.0.41	sbl-32-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
176.9.101.16	sbl-31-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
5.9.148.80	sbl-30-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
88.198.67.51	sbl-29-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
5.9.151.114	sbl-28-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
144.76.39.139	sbl-27-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
176.9.114.144	sbl-26-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
176.9.146.211	sbl-25-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
176.9.85.201	sbl-24-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
144.76.172.52	sbl-23-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
144.76.61.208	sbl-22-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
5.9.139.244	sbl-21-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
176.9.125.81	sbl-20-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany

IP address	Domain	ISP	ASN	Location
176.9.104.237	sbl-19-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
176.9.114.210	sbl-18-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
213.239.209.172	sbl-17-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
78.46.72.109	sbl-121-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
176.9.149.239	sbl-120-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
176.9.107.138	sbl-119-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
51.178.179.38	sbl-118-v2.streamalloha.live	OVH SAS	16276	France
176.9.19.73	sbl-117-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
138.201.81.133	sbl-116-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
138.201.85.31	sbl-115-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
88.99.216.190	sbl-114-v3.streamalloha.live	Hetzner Online GmbH	24940	Germany
138.201.137.219	sbl-113-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
116.202.228.188	sbl-112-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
88.99.102.142	sbl-111-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
88.99.147.168	sbl-110-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
176.9.85.56	sbl-109-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
176.9.99.220	sbl-108-v2.streamalloha.live	Hetzner Online GmbH	24940	Germany
149.202.26.226	alienist.allohalive.com	Malets Alexei Alexeevich (OVH network is used)	16276	France
149.202.26.226	bayas.allohalive.com	Malets Alexei Alexeevich (OVH network is used)	16276	France
149.202.26.226	best.allohalive.com	Malets Alexei Alexeevich (OVH network is used)	16276	France
149.202.26.226	bob.allohalive.com	Malets Alexei Alexeevich (OVH network is used)	16276	France
149.202.26.226	klipzona.allohalive.com	Malets Alexei Alexeevich (OVH network is used)	16276	France
149.202.26.226	pope.allohalive.com	Malets Alexei Alexeevich (OVH network is used)	16276	France
194.88.104.22	sbl.streamalloha.live	WorldStream B.V.	49981	Netherlands

Protonvideo

The main domain is protonvideo.to.

Videos are streamed using technical domains with the format *.cdn.protonvideo.to.

IP address	Domain	ISP	ASN	Location
146.255.198.35	astatium.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
146.255.198.19	aurum.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
77.220.172.132	bbs.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
77.220.172.140	beryllium.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
146.255.198.211	cadmium.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
77.220.172.148	calcium.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
176.58.48.48	cdn.protonvideo.to	LLC Mnogobyte	199251	Russia
77.220.172.156	cobalt.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
146.255.199.35	elvis.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
146.255.198.171	erbium.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
77.220.172.75	fingerium.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
77.220.172.91	flerovium.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
54.36.106.81	flerovium.protonvideo.to	OVH SAS	16276	France
146.255.199.59	flora.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
146.255.198.43	francium.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
146.255.198.59	gadolinium.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
77.220.172.99	gallium.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
77.220.172.172	giza.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
77.220.172.117	holmium.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
146.255.198.11	iridium.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
77.220.172.83	jointinum.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
77.220.172.180	louvre.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
146.255.198.147	lutetium.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
146.255.198.243	magic.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
146.255.199.43	mortis.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
146.255.198.227	nailium.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
146.255.198.235	nickel.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
146.255.199.51	nika.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
77.220.172.250	niobium.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
77.220.172.196	nitrogen.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
146.255.197.67	osmium.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
146.255.197.236	oxygen.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
77.220.173.11	ozzy.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
77.220.172.204	petra.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
146.255.198.189	phosphorus.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
77.220.172.227	plumbum.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
146.255.198.27	polonium.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
77.220.172.212	potassium.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
31.220.40.67	protonvideo.to	Amarutu Technology Ltd	206264	Netherlands
146.255.198.51	radium.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia

IP address	Domain	ISP	ASN	Location
146.255.199.19	rocker.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
146.255.199.27	rockstar.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
77.220.172.43	rutherfordium.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
146.255.199.67	selenium.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
77.220.172.220	silicon.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
77.220.172.67	skinium.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
77.220.172.236	stonehenge.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
146.255.198.195	strontium.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
146.255.198.139	terbium.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
77.220.172.187	thallium.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
77.220.172.59	tiberium.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
185.132.179.155	u1.protonvideo.to	WorldStream B.V.	49981	Netherlands
178.132.0.30	u2.protonvideo.to	WorldStream B.V.	49981	Netherlands
62.112.8.18	u3.protonvideo.to	WorldStream B.V.	49981	Netherlands
190.2.153.12	u4.protonvideo.to	WorldStream B.V.	49981	Netherlands
185.180.223.78	u5.protonvideo.to	WorldStream B.V.	49981	Netherlands
185.177.124.26	u6.protonvideo.to	WorldStream B.V.	49981	Netherlands
190.2.140.12	u7.protonvideo.to	WorldStream B.V.	49981	Netherlands
146.255.198.131	ununbium.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
77.220.172.244	vegas.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
77.220.172.27	vespene.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia
146.255.198.203	yttrium.cdn.protonvideo.to	LLC Mnogobyte	42632	Russia

The economics of illegal resources

As part of their anti-piracy and brand protection activities, Group-IB specialists used the follow-the-money approach to identify who profited from unlawful activities.

It was found that illegal casinos and bookmakers were the main beneficiaries and drivers of illicit video streaming services and pirated sports video streaming services.

Although other monetization methods exist, online casino and bookmaker partner programs are still the main way to generate income in the piracy business.

Pirate websites act as advertising platforms designed to attract new users. In most gambling partner programs, compensation is a percentage of the sum lost by online players.

For the largest partners, other terms can be established according to the CPA (cost per action) model. In this case, compensation is paid for an agreed list of player actions and does not depend on the sum lost.

There are usually three kinds of advertising materials:

- partner links;
- promo codes;
- banners.

Partner links and banners are most often used on websites, while broadcasts and videos contain promo codes and ads of their own domains.

$140

the profit of the beginners as part of the Melbet partner program in the first month

$21,000+

made by bookmakers with well-developed partner programs per month

To keep statistics and track visits, links and banners have unique IDs (referral codes) that help identify what website a user has come from. If advertising is embedded into streamed video content, promo codes are used for the same purpose. To ensure that promo codes are used during registration, players are offered a small bonus, often paid by the organizer of the pirate video broadcast (the bonus is later subtracted from the final compensation for the online player the organizer attracted).

The bonuses mean that it is more profitable for players to register using referral links or promo codes. Active players, let alone those addicted to gambling, can have multiple accounts to diversify risks related to money withdrawal and account blocking.

The main advertisers in sports streaming are 1xBet, Melbet, Parimatch, Linebet, Orca88, Bwin, and others. A streaming service's average revenue is between 20% and 40% of the sum lost by the players it attracted (depending on the partner program).

As compensation is dependent on how lucky the online players are, it is impossible to forecast the revenue for each project. Moreover, passive income from previously attracted players grows over time.

As part of the Melbet partner program, beginners make $140 in their first month on average (for resources with over 7,000 subscribers and more than 14,000 views per day).

Customers who take part in the Melbet program for a long time can reach revenues of up to $21,000 per month (for resources with an average of 70-80 players attracted daily).

Statistics:[10]

Главная	Маркетинговые инструменты	Отчеты	Платежи	Учетная запись	Выйти из партнерского интерфейса

Заработано:

Всего:	Вчера:	Текущий месяц:	30 дней:
1 303 174,26 ₽	**33 988,40 ₽**	**150 648,17 ₽**	**425 805,99 ₽**

Доступно к выводу:
122 011,72 ₽

Экспресс-меню
> Получить партнерскую ссылку
> Получить промо-материалы
> Добавить сайт

Dashboard	Marketing tools	Reports	Payments	Account	Sign out of partner interface

Earned:

Total:	Yesterday:	This month:	30 days:
$18,500.14	**$482.51**	**$2,128.63**	**$6,044.83**

Available for withdrawal:
$1,732.10

Express menu
> Get partner link
> Get promo materials
> Add site

Главная	Маркетинговые инструменты	Отчеты	Платежи	Учетная запись	Выйти из партнерского интерфейса

Заработано:

Всего:	Вчера:	Текущий месяц:	30 дней:
1 395 116,59 ₽	**23 656,67 ₽**	**86 626,84 ₽**	**766 600,82 ₽**

Доступно к выводу:
0,00 ₽

Экспресс-меню
> Получить партнерскую ссылку
> Получить промо-материалы
> Добавить сайт

Dashboard	Marketing tools	Reports	Payments	Account	Sign out of partner interface

Earned:

Total:	Yesterday:	This month:	30 days:
$19,805.38	**$335.84**	**$1,229.77**	**$10,882.83**

Available for withdrawal:
$0.00

Express menu
> Get partner link
> Get promo materials
> Add site

Главная	Маркетинговые инструменты	Отчеты	Платежи	Учетная запись

Заработано:

Всего:	Вчера:	Текущий месяц:	30 дней:
4 399 037,26 ₽	**3 368,11 ₽**	**38 666,65 ₽**	**1 476 840,42 ₽**

Доступно к выводу:
0,00 ₽

Экспресс-меню
> Получить партнерскую ссылку
> Получить промо-материалы
> Добавить сайт

Dashboard	Marketing tools	Reports	Payments	Account

Earned:

Total:	Yesterday:	This month:	30 days:
$62,449.69	**$47.81**	**$548.92**	**$20,965.55**

Available for withdrawal:
$0.00

Express menu
> Get partner link
> Get promo materials
> Add site

Example of revenue from the partner program forum*

Although some partner program participants have high profits, it should be noted that online casinos and bookmakers often use schemes to reduce commission sums. For example, regular payments may be delayed or cancelled altogether under various pretexts. Traffic and the number of players attracted may be underreported, as may sums lost by the players. Statistics may be mixed with fake data simulating frequently winning players. What's more, nearly all bookmakers cut the account balances for players who have considerable profits in the long run. As a result, accounts belonging to partner program participants may even fall below zero.

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[10] The statistics were provided by participants of the Melbet partner program. This may have been done for advertising purposes and the information might not be factual or accurate.

* Hereinafter screenshots in Russian will be provided together with a translation into English

Вот тоже в точь. Есть много игроков которые вкладывали примерно по тыще,баланс медленно шёл в плюс, а вот через пол года стали появляется какие то игроки которые стали ставить более 20к и загонять банк в минус, причем ставят с некоторой периодичностью в месяц перед выплатами.

Цитировать

Антончик 08.07.2019 08:40 0

Полная херня, никогда не связывайтесь. ▓▓▓▓▓ как игроков, так и своих партнёров. Проценты режут только так, даже не предупреждая. Уверен что и в статистику далеко не все регистрации идут. Периодически появляются какие-то "удачливые" игроки, якобы зареганные по вашей реферальке, которые выигрывают огромные деньги и не сливают их потом, а ваш счёт плавненько из плюсового уходит в минусовой. Поддержка тупая, простые логические разговоры не понимают, демо счета жопят. Выводы делайте сами.

Цитировать

КириллЛ 17.05.2019 08:50 0

Поддерживаю DeMoN, работали около 3 месяцев, постоянно появлялись в кабинете игроки, которые резко при 10к депозите выигрывали по 100-200к и загоняли баланс в минус. Спустя 3 месяца только баланс вышел в маленький плюс. Проценты понижают без предупреждения.

Цитировать

DeMon 06.03.2019 03:35 0

▓▓▓▓▓▓. ▓▓▓▓ бабки только так. Загнали бабла на 1500000р поиграли на 450 000р мне досталось 82000р и это за три года. Вот и посчитайте реальный процент. Все пруфы присутвуют. Не тратьте на них время и ищите другую контору.

Цитировать

Same situation here. There are many players who invested about $13 at a time and had their balance gradually show profit; but after six months some players showed up and started betting over $280, pushing the pot into the red, with bets made at certain intervals in the month before payouts.

Quote

Antonchik 08.07.2019 08:40 0

Utter bullshit, never get involved with them. They **** over both the players and their partners. They cut percentages just like that, without a warning. I'm sure that the statistics show far from all registrations. There are occasionally some "lucky" players purporting to have been registered through your referral, who start winning large sums and don't lose them, and then your account balance gradually goes from profit to loss. The customer support people are dumb, they don't understand simple logical conversations, too tight-assed to show account demos. Draw your own conclusions.

Quote

KirilL 17.05.2019 08:50 0

I second DeMoN; worked for about 3 months, constantly had some players in the account who quickly won between $1,400 and $2,800 with $140 deposits and pushed the balance into the red. The balance showed a little profit only after 3 months. They lower percentages without warning.

Quote

DeMon 06.03.2019 03:35 0

******** scam. They steal dough just like that. We put $21,300, lost $6,380, I got $1,160 and that's in three years. Count the actual percentage yourself. All the proof is there.

Quote

Reviews by scammed webmasters

1xBet

Founded:

2007

Website:

1xBet.com

General information

A perfect example of actively promoting a gambling brand online is the history of 1xBet.

1xBet is a betting company founded in 2006. Mediascope, specialized in media research, estimates that in Q1 2019 1xBet came third in the top 10 list of advertisers in the online videos segment, with 2.4% (by comparison, Google topped the list and had 3.3%). According to the year-end results of 2019, however, the company did not make it to the list due to active measures against online gambling. At the moment, various experts estimate that the company is not even on the list of the top 30 advertisers in Russia.

The bookmaker's primary audience includes residents of developing countries (India, Brazil, Thailand, and post-Soviet countries).

In 2009, Russia passed a law that banned non-certified gambling organizations. Two years later, the Russian government had claims against 1xBet for the first time. In 2016, access to the main domain 1xBet.com was restricted in Russia.

To prevent losses, 1xBet took two steps:

1. It expanded its development beyond the post-Soviet region.
2. It took measures to bypass blocking: numerous mirror sites (over 800) were created and an ad system involving pirate traffic (voiceover studios, camrip groups) was developed.

Entry into the markets of developing countries

After being blocked in Russia, 1xBet owners shifted their focus to:

· Latin America (primarily Brazil);
· India;
· Thailand.

Like Russia, these regions and countries have the following characteristics:

1. They are developing countries.
2. Their inhabitants are mainly non-English speakers.
3. Their populations have a low financial literacy.
4. Sports streaming is highly popular.

Links with piracy in the post-Soviet region

Official advertising services rarely work together with pirate portals. In their license agreements, major aggregators such as Yandex and Google have paragraphs that ban the use of content without the copyright holder's consent.

This resulted in a symbiosis of gambling companies and pirate traffic.

In September 2015, 1xBet, together with the voiceover studio Baibako team, published their first ever joint release, with their ads integrated into the video.

First time that 1xBet work together with with pirates voiceover studio

Based on the analysis of conversations on specialized forums, since 2015, 1xBet is likely to have sponsored content for 17 TV show voiceover studios (i.e. 80% of major voiceover studios).

Voiceover studio	Collaboration start date	Content
Baibako	September 26, 2015	TV series/movies
Gears Media	November 29, 2016	TV series
Coldfilm	January 17, 2017	TV series
Green Рай [Green Rai]	April 1, 2017	TV series/movies
NewStudio	March 7, 2017	TV series
Idea film	May 24, 2017	TV series
Omsk Bird	May 18, 2017	TV series/movies
Hamster studio	October 9, 2018	TV series
Alexfilm	March 5, 2018	TV series/movies
Jaskier	June 17, 2017	TV series/movies
Sunshine Studio	November 7, 2017	TV series
Good People	August 12, 2017	TV series/doramas
Kansai Studio	August 3, 2017	Animation
Gostfilm	March 26, 2018	TV series
Alternative Production	November 28, 2018	TV series
Синема УС [Cinema US]	February 01, 2019	TV series
Музобоз / Колобок [Muzoboz / Kolobok]	February 01, 2019	Movies

1xBet has been one of the main sponsors of illegal distribution of TV series in the post-Soviet region since 2017.

Year	Number of studios working with 1xBet
2015	1
2016	2
2017	9
2018	14
2019	17

Collaboration with voiceover studios was based on the following pattern: a voiceover studio would inform an 1xBet advertising manager about a possibility to produce content and 1xBet would pay for it. This meant that 1xBet did not participate in content production (did not order any specific content) but sponsored it. Its collaboration with camrip groups was similar.

Voiceover studies and their representatives searched for digital copies of content released abroad. The more relevant the content, the more 1xBet paid for it.

$55

is the average cost of voiceover
services paid by 1xBet for one episode

up to 80%

of pirate resources in post-Soviet
countries contained 1xBet
advertisements

Koshara × 1xBet

Launched together 100 camrips

The average cost of voiceover services for one episode amounted
to about $55.[11] For a movie already released online, the cost was
$65-$70. 1xBet spent between $5,000 and $8,300 on average
per month on sponsoring voiceover studios and creating camrips
in the post-Soviet region.

If we look at the history of camrips, the average cost of producing
one camrip amounted to between $400 and $1,000 (depending
on the copy's quality and the content's popularity).

As for integrating ads into the pre-rolls of pirate CDNs, collabora-
tion has been ongoing since 2016. As such, 1xBet ads have been
placed on more than 80% of all pirate resources in post-Soviet
countries.

The total number of content items voiced over with 1xBet's sup-
port in post-Soviet countries amounts to over 900 (movies and
TV series).

Beginning of interaction with Koshara/Octopus team

In February 2019, the group Koshara started acting
as an intermediary between 1xBet and voiceover studios. Around
the same time, this release-group began creating camrips with
hardcoded 1xBet ads for post-Soviet countries.

Koshara still makes its own camrips regardless of 1xBet, which
is why 1xBet ads often appear several times in different versions
of a camrip. The first time is when a voiceover studio edits
an overseas camrip; the second time is when a camrip is created
locally.

In addition to producing content, Koshara commits to distributing
content by placing it on more than eight major torrent tracker
services (including its own website) and uploading it to two CDNs
after the content is released.

Since 1xBet started working with Koshara, over 100 camrips have
been released, which amounts to an average of three per week.

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[11]   The costs shown are for the post-Soviet region; content production
       costs for India are unknown.

Piracy connections worldwide
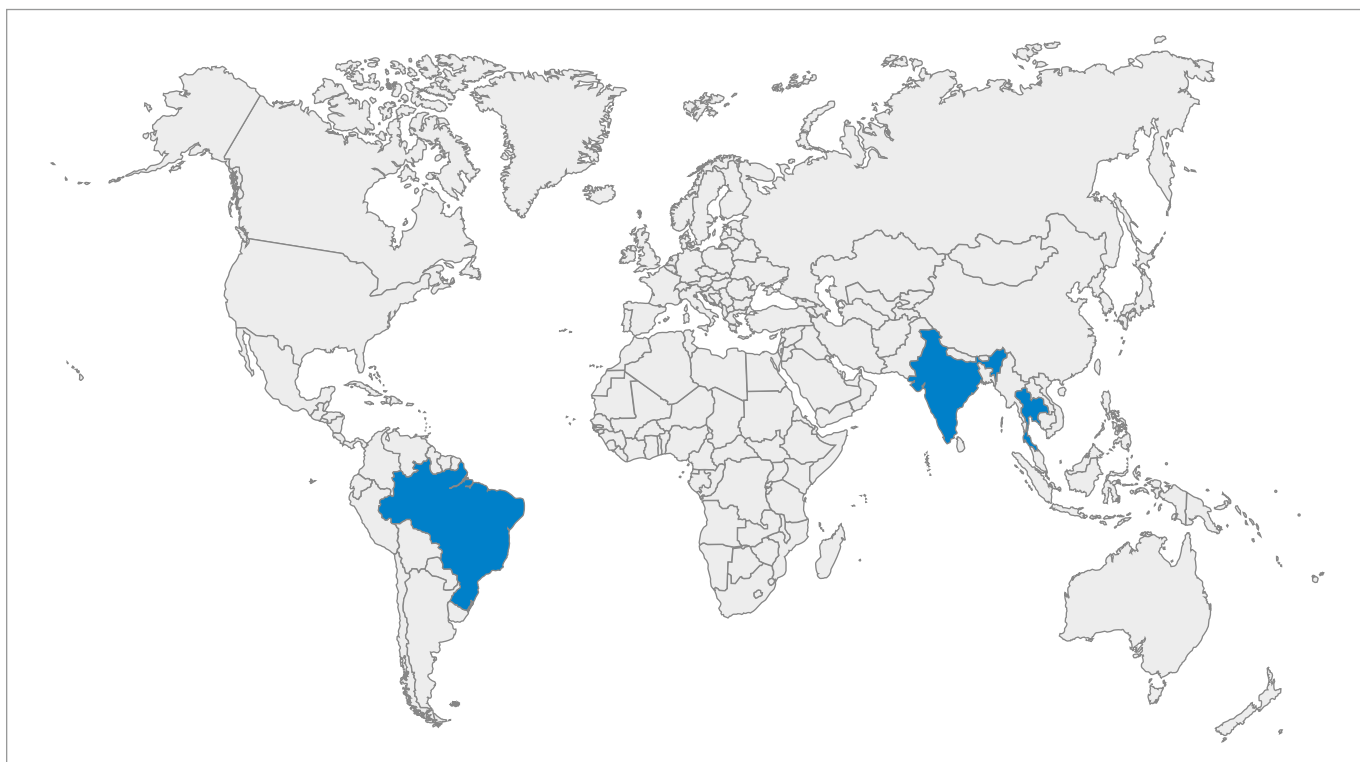
1xBet.com traffic map (according to similarweb.com)

1xBet started creating content for overseas countries in 2018.

Total camrip releases: over 500.

Total titles covered: over 270.

Distribution by language:

- 100% of camrips are in English;
- 14% of camrips are in Spanish;
- 5% of camrips are in other languages (Tamil, Portuguese, Thai, Hindi, and others).

On average, 1xBet released four camrip versions of films per week.

Lucky Partners & Welcome Partners

Website:

https://luckypartners.biz/

Foundation
Lucky Partners founded by Rustam Gilfanov

In 2011,
Lucky Partnerns moved from Moscow to Kiev due to Ukraine's less strict gambling laws

In 2013,
Lucky Partners started collaborating with a Ukrainian entrepreneur

In 2020,
The conflict between Lucky Partners and Welcome Partners has lasted for over six years

General information

For a long time, the two partner programs Lucky Partners and Welcome Partners were the main participants involved in the underground online casino market.

According to media reports, Lucky Partners was founded by Rustam Gilfanov. His partner was Sergey Tokarev.[12] In 2011, Lucky Partnerns moved from Moscow to Kiev due to Ukraine's less strict gambling laws.[13]

Welcome Partners was founded by a Ukrainian entrepreneur, the owner of many Ukrainian online casinos and popular dating websites.

Lucky Partners started collaborating with the Welcome Partners leadership in 2013. However, they later had a conflict, which has been ongoing for over six years.

Business practices

Both partner programs use two types of illegal online casinos: licensed and non-licensed.

In several countries, including in Europe, laws generally allow for online casinos to operate. As such, some developers provide software for online casinos that comply with gambling regulations. In such casinos, winning is possible and winnings are based on a mathematical algorithm that ensures that the casino always has some profit. These casinos are considered licensed.

In the case of non-licensed casinos, similar software is installed, but it is cracked and allows setting arbitrary betting odds, including in a way that makes winning impossible.

It is worth mentioning that Lucky Partners try to distance themselves from the most well-known casinos, particularly Azino777, but media outlets have confirmed that this casino is in fact one of their projects.

Along with online casinos, partner programs are involved in other gambling-type projects: small Forex brokers and binary options (a business that deals with bets on currencies and cryptocurrencies, which in general is banned by international payment systems, Russian law, and the laws of European countries), various lotteries, and other similar products.

Lucky Partners and Welcome Partners stay away from Fonbet and 1xBet, the leaders of the bookmaker industry. Nevertheless, both support the gambling industry.

[12]   https://www.rbc.ru/magazine/2018/07/5b3f96df9a79475e9f9f5045

[13]   https://rb.ru/longread/unlucky-labs/

Accepting payments

International payment systems require that almost all aforementioned types of businesses be registered with a special transaction code, MCC 7995. This is the code that was blocked in the US to stop online casino transactions. Violating the MCC 7995 requirement incurs significant fines starting at $25,000 for each incident.

$25,000+

is a fine for violating the MCC 7995 requirement

In addition, banks assign MCC codes based on data that companies themselves provide. To be able to operate in Russia, online casinos specify other MCC codes. For example, Azino used the code 6012 (sale of certificates and consulting services as well as loan payments), while the actual recipient was the company Victory 777 N.V, which held a Curaçao license.[14] In December 2018, the company was placed on the list of entities for which there is information that they organize and host gambling games in violation of Russian law. This list is kept by the Russian Federal Tax Service and includes 42 companies. It was last updated in August 2019.

To verify payment information, Group-IB specialists used the website https://affgambler.ru/blacklisted-casinos, which lists the most popular licensed and non-licensed online casinos.
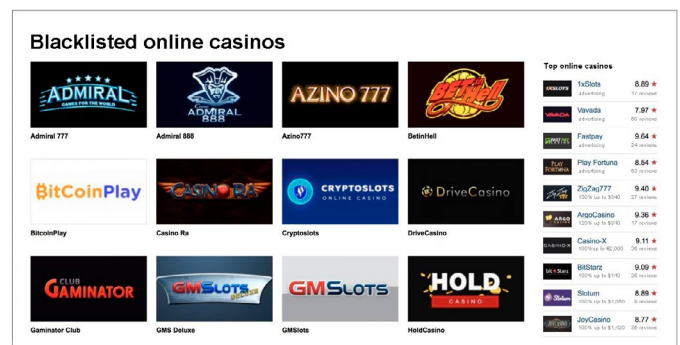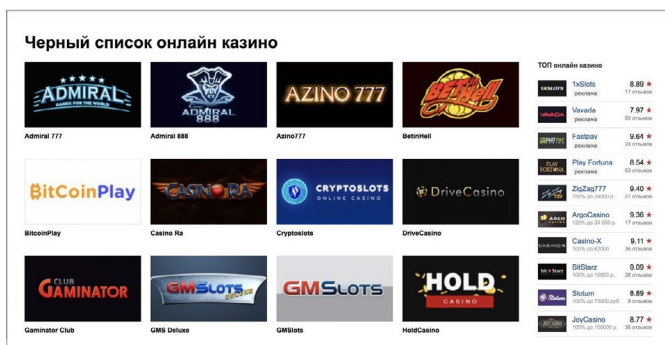
Analysis suggests that all popular online casinos use exclusively Russian banks[15] to accept payments, despite the fact that the owners are based in Ukraine. None of the banks use MCC 7995 for this activity even though there are technical solutions that help automatically check websites connected to the processing system for illegal content (including related to online casinos).

Such actions by banks are ignored by the international payment systems Visa and Mastercard and the Russian system Mir, which runs counter to both the rules of the payment systems themselves and the provisions of the Central Bank of Russia.

There are almost no international precedents of online casinos or bookmakers violating MCC 7995. Under the rules of international payment systems, this type of violation is one of the most serious ones, second only to payments for child pornography.

[14] https://www.rbc.ru/magazine/2018/07/5b3f96df9a79475e9f9f5045

[15] The names of the banks have not been disclosed in the report's public version for confidentiality reasons. This information has been provided to relevant government agencies.

In Russia, Visa and Mastercard parent organizations fail to address the ubiquitous violations. The reason could be their poor understanding of the scale of online piracy in Russia and the monetization of this business through the gaming industry. As such, we have shared this report with the parent organizations of the payment systems.

Distributing payments

For outgoing financial flows (namely players' winnings and commission payouts to webmasters for ads), acquiring banks usually act as intermediaries. Payouts to webmasters seem to be carried out through the online bank capitalist.net.

Attracting advertising

Attracting ad traffic to the aforementioned projects is done in two ways.

The first method is advertising in the webmaster community, which centers around the forums gofuckbiz.net, maultalk.com, and armadaboard.com. Community members meet at various offline events, mainly overseas to avoid the attention of law enforcers. According to the information available, these forums also belong to capitalist.net.

The second method involves ads through pirate websites using specialized advertising agencies. One of such agencies is Adwise Agency, whose links with Lucky Labs were confirmed by the media.[16] Adwise Agency has been suspected of having links with illegal online gambling and pirate websites (e.g. Kinogo, HDRezka, Filmix, Kinoprofi), including by law enforcement agencies. In February 2020, the Cyber Police of Ukraine searched Adwise Agency's offices in relation to the funding of the pirate websites kinosha.se, kinanema.net, kinoprofi.vip, rezka.ag, and filmix.co.[17]

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[16] https://www.rbc.ru/magazine/2018/07/5b3f96df9a79475e9f9f5045

[17] https://ain.ua/2020/02/28/obyski-u-adwise/

Russian infrastructure of illegal resources

ZeroCDN (Mnogobyte)

The project's websites:

https://zerocdn.com/
https://mnogobyte.ru/

INN[18]

7733572160

OGRN[19]

1067746757176

Legal address:

12 Tushinskaya St., Moscow, Russia

Office address:

39 Leningradskaya St., Bld. 6, Fl.14

ZeroCDN, which belongs to the Russian company Mnogobyte, is one of the most popular services used for placing and distributing video content. As at late 2019, the ZeroCDN project infrastructure was used by 38% to 60% of pirate websites.

The following CDNs were found to use ZeroCDN servers:

- VideoCDN (the third most popular CDN, used by up to 33% of pirate websites);
- Kodik;
- Videoframe;
- Protonvideo.

In addition, ZeroCDN servers are used by some separate projects, in particular Hdrezka (over 52 million visitors per month) and Kinogo (more than 35 million visitors per month).

The company's website mentions that the Mnogobyte network has direct connections to major Russian communications service providers, including Beeline, MTS, and TransTelecom, as well as Moscow-based and regional operators. Major Ukrainian communications service providers (Eurotel, Dataline, Datagroup, and Topnet) and Belarus' largest telecommunications service provider Beltelecom are also connected to the Mnogobyte network. What's more, Mnogobyte is part of several Internet Exchange Points (MSK-IX, DATA-IX, W-IX, Global-IX).

In 2015, the company launched the ZeroCDN project, the aim of which was to store and transfer large amounts of media content.

Since 2017, the company has been officially working with the Swiss solutions provider DigitalOne AG.[20]

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[18] Taxpayer identification number

[19] Principle state registration number

[20] https://hosting.kitchen/mnogobyte/mnogobayt-i-digitalone-ag-podpisali-dogovor.html

DDOS-GUARD

Address

Suite 11, Floor 5, 276 Maksima Gorkogo St., Rostov Region, Russia

INN

9204005780

OGRN

1149204010988

KPP[21]

616701001

Website

https://ddos-guard.net/en

IP address ranges

45.155.60.0/24
185.129.100.0/22
185.129.101.0/24
185.129.102.0/24
185.129.103.0/24
185.178.208.0/24
185.178.209.0/24
185.178.210.0/24
186.2.160.0/20
190.115.16.0/20

The Russian company DDOS-GUARD provides anti-DDoS and content delivery services. It is also a hosting service provider.[22]

By Order of the Russian Ministry of Digital Development, Communications and Mass Media No. 326-FZ of June 26, 2017, the DDoS-Guard Protection software was registered as an information security tool in Russia's Unified Register of Programs for Electronic Computers and Databases.

Yet the company's services are used by many illegal resources, including pirate and fraudulent ones. DDOS-GUARD does not usually respond to any complaints regarding such resources.

The company DDOS-GUARD:

· provides fraudulent websites with its computing capacities, which are used to operate the websites in question;
· conceals the actual hosting service and obstructs the identification of website owners.

It is of note that the terms and conditions of using DDOS-GUARD's services stipulate that customers agree to use the specified services for lawful purposes only. Yet organizing gambling games and scams falls under unlawful use.[23]

Despite that, DDOS-GUARD does not comply with its own terms and conditions of using their services. Under Articles 15.1 to 15.6-1 of Russian Federal Law No. 149-FZ of July 27, 2006 "On Information, Information Technologies, and Protection of Information," access to many websites that distribute illegal information and that are or have been hosted on DDOS-GUARD's network addresses is restricted by Roskomnadzor (Russia's Federal Service for Supervision of Communications, Information Technology and Mass Media). At the same time, the specified procedure before blocking provides for the mandatory notification of violation to the hosting provider, indicating the need to remove unlawful information. Thus, DDOS-GUARD knew about the violations on the blocked websites, but did not take any actions.

As at June 24, 2020, a total of 453 such resources (domains or URL addresses) were blocked. These include:

· 6 resources with network addresses in the subnetwork 185.129.100.0/24;
· 5 resources with network addresses in the subnetwork 185.129.102.0/24;
· 442 resources with network addresses in the subnetwork 185.178.208.0/24.

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[21] Reason for registration code

[22] https://ddos-guard.net/ru/store/hosting

[23] https://ddos-guard.net/file/aup_en.pdf

The breakdown of violations on these resources is as follows:

- copyright infringements: 299;
- narcotics: 67;
- gambling games: 29;
- alcohol trade: 1;
- other violations (by court decision): 57.

15%
Narcotics

6%
Gambling games

66%
Copyright infringement

13%
Other violations (court)
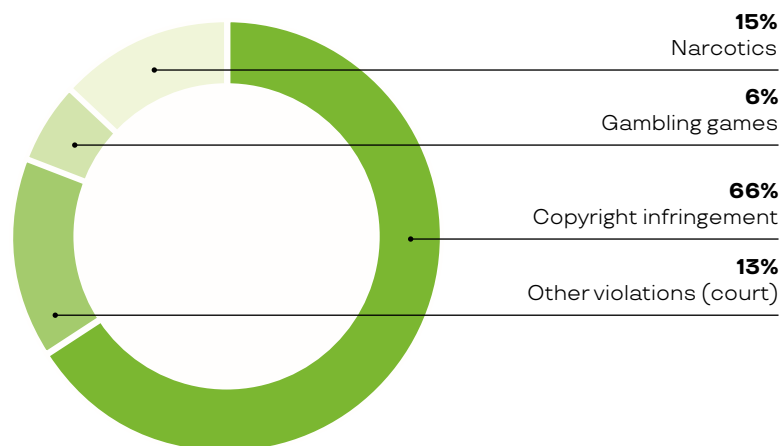
In addition to pirate resources, the blocking covered socially dangerous resources such as Shadowmarket, an online platform for buying and selling illegal products and services, as well as numerous narcotics stores:

💬 Форум	🔨 Арбитраж	🛡 Гарант - сервис	✅ Проверка схем	⊕ Повышение прав	★ Отзывы	👥 Наша команда

| 📖 Правила форума | 🖃 Депозит на форуме | 📈 Реклама на форуме | ⑦ Что такое SM Club? | ⊘ Запрещено на форуме | ⑦ Что делать если угнали аккаунт? |

🏠 Главная

Новые пользователи	Последние отзывы	Обсуждаемые темы	Топ темы
👤 99ru	🧷 Торговая площадка - Hydra (Гидра)	Закреплено	Админ
👤 Зюзю	🧷 Купить паспорт РФ. Переклейка паспорта. Купить Загранпаспорт. Купить пасп...	Закреплено	ASPIRIN
👤 terehov145	🧷 Продажа персональных аттестатов WebMoney. В наличии и на заказ	Закреплено	mrpink
👤 Bessonova1	Продаю Скрипт Сайта Займов Для Развода На Оплату!	1 минута назад	dron
👤 Юлия1199	Дубликат Водительских Прав. СТС (СОР), ВУ СПЕЦТЕХНИКА, ВУ ГИМС, ПТС	11 минут назад	KUPI PRAVA
👤 STAS445	Отрисую под ваши данные документы без предоплаты. Самые Низкие Цены!	16 минут назад	Dok777
👤 mooncake	Надежные дебетовые карты РФ. Качественный материал!	23 минуты назад	Brazilec
👤 Gunfinger	Изготовление Печатей	28 минут назад	HeavyRain
👤 roiu88	Белая Схема Заработка. Прибыль От 15000 Рублей В День	32 минуты назад	Guliver
👤 AlbertKhabirov	Продажа Dedicated servers (Дедики)	43 минуты назад	anna911

💬 Forum	🔨 Complaints	🛡 Guarantor service	✅ Scheme check	⊕ Rights upgrade	★ Reviews	👥 Our team

| 📖 Forum rules | 🖃 Deposit on the forum | 📈 Ads on the forum | ⑦ What is SM Club? | ⊘ Forbidden on the forum | ⑦ What to do if your account has been hijac... |

🏠 Home page

New users	Latest reviews	Topic discussions	Top topics
👤 99ru	🧷 Hydra trading platform	Pinned	Admin
👤 Зюзю	🧷 Buy Russian passport. Change passport details. Buy travel passport. Buy passp...	Pinned	ASPIRIN
👤 terehov145	🧷 Sale of personal Webmoney IDs. In stock and custom-made	Pinned	mrpink
👤 Bessonova1	I'm selling a script for a scam loan website!	One minute ago	dron
👤 Юлия1199	Driver license duplicate. Vehicle registration certificates, licenses for special	11 minutes ago	KUPI PRAVA
👤 STAS445	I'll create documents with your details with no prepayment. Lowest Prices!	16 minutes ago	Dok777
👤 mooncake	Reliable Russian debit cards. Quality material	23 minutes ago	Brazilec
👤 Gunfinger	Stamps	28 minutes ago	HeavyRain
👤 roiu88	Legal income generation scheme. Profit $210+	32 minutes ago	Guliver
👤 AlbertKhabirov	Sales of Dedicated servers	43 minutes ago	anna911

The resource is hosted on the IP address 185.178.208.149

The resource, illegally using TSUM trademark, was hosted on the IP address 185.178.208.174 (at the moment on Cloudflare)

Ск синие кристаллы ЛЮСИ 10г	**Ск белые кристаллы APVP 30г**	**Ск белые кристаллы APVP 20г**	**Рега (1к20) 100г**
В наличии: 2шт	В наличии: 2шт	В наличии: 2шт	В наличии: 4шт
12500 руб	27000 руб	21000 руб	70000 руб
Купить	Купить	Купить	Купить
Рега (1к20) 50г	**Рега (1к20) 30г**	**Рега (1к20) 0,5г**	**ТВ "Малинка" 100г**
В наличии: 3шт	В наличии: 4шт	В наличии: 16шт	В наличии: 4шт
40000 руб	27000 руб	1500 руб	22500 руб
Купить	Купить	Купить	Купить

Blue crystals LUCY 10 g	**White crystals APVP 20 g**	**White crystals APVP 20 g**	**Rega (1/20) 100 g**
In stock: 2	In stock: 2	In stock: 2	In stock: 4
$177	$383	$298	$994
Buy	Buy	Buy	Buy
Rega (1/20) 50 g	**Rega (1/20) 30 g**	**Rega (1/20) 0.5 g**	**Malinka 100 g**
In stock: 3	In stock: 4	In stock: 16	In stock: 4
$568	$383	$21	$319
Buy	Buy	Buy	Buy

The resouce was hosted on the IP address 185.178.208.135
(at the moment on Cloudflare)
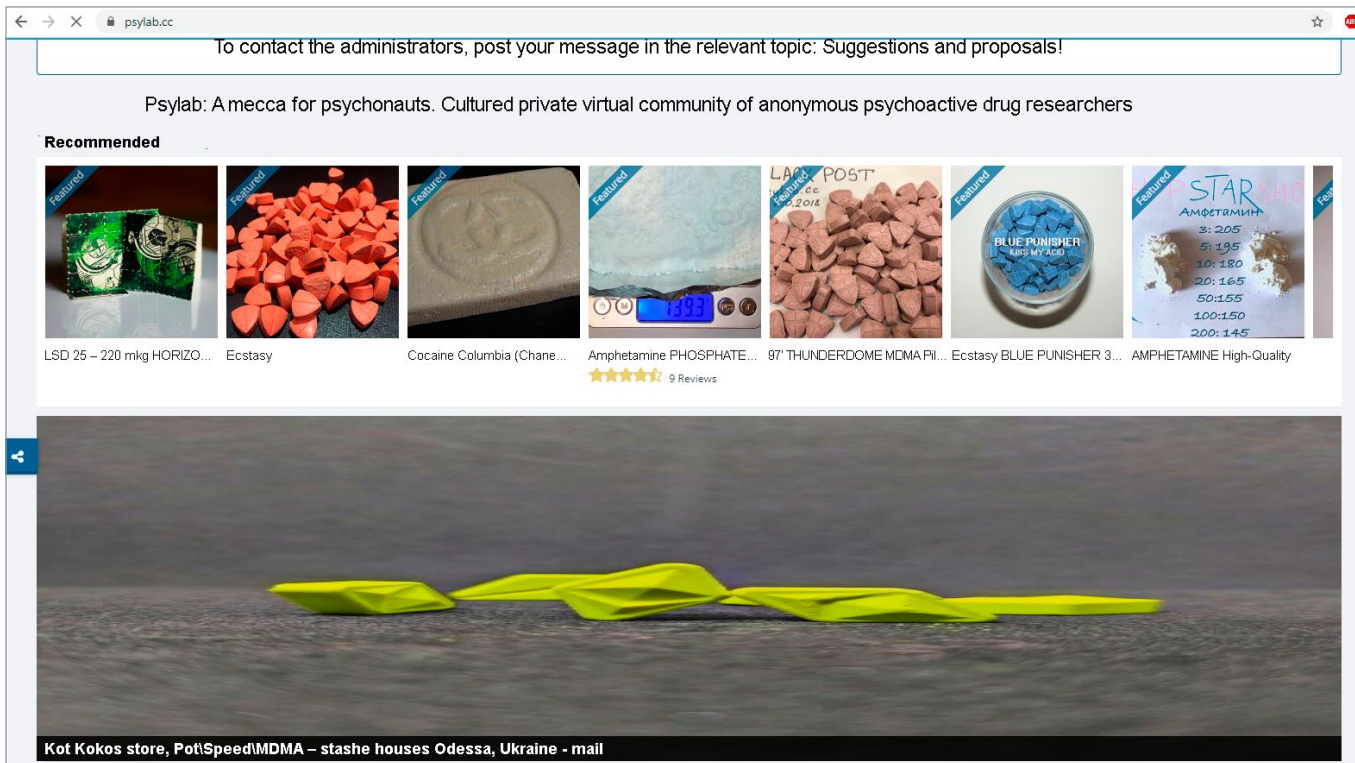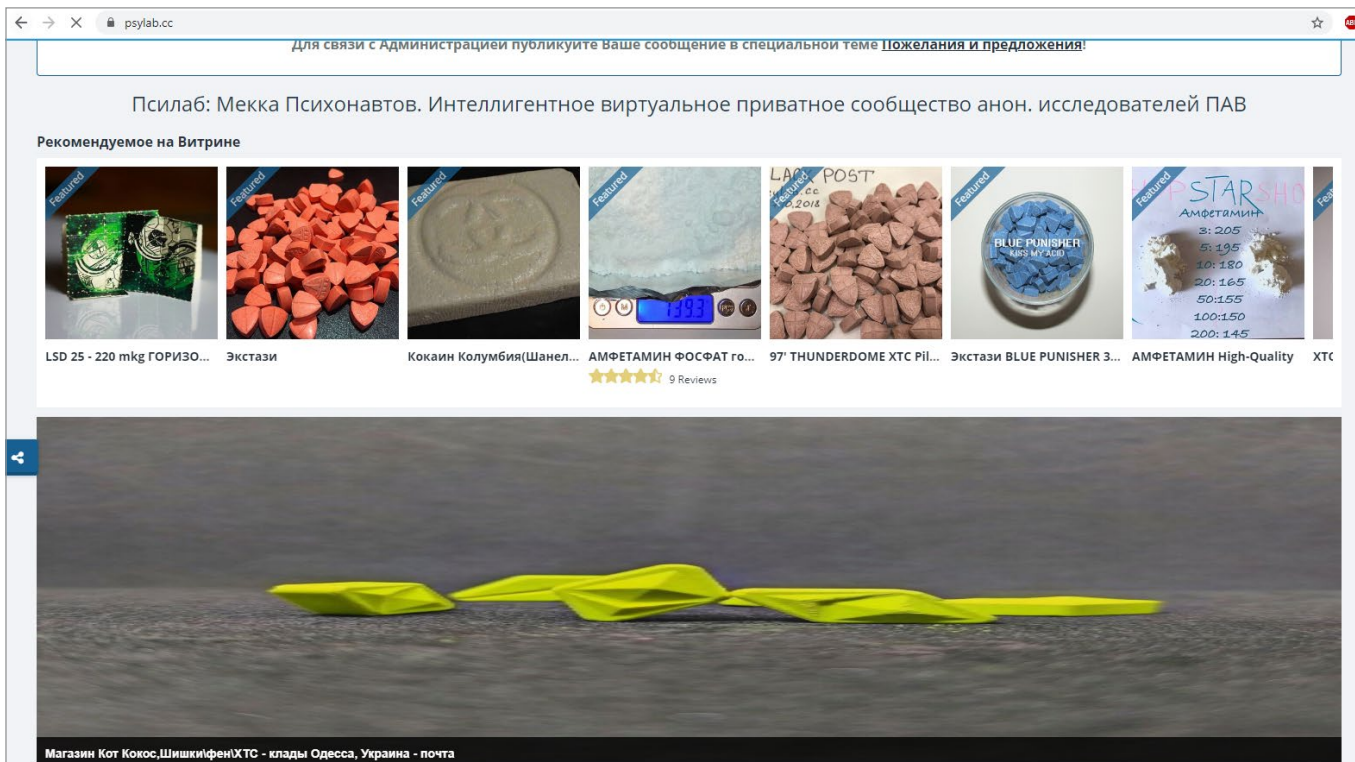
The resource is hosted on the IP address 185.178.208.183

Legal information

Online casinos

The activities of online casinos are regulated by Russian Federal Law No. 244-FZ of December 29, 2006 "On the State Regulation of Activities Involving the Organization and Conduct of Gambling and on the Introduction of Amendments to Certain Legislative Acts of the Russian Federation."

Requirements for gambling game organizers are laid down in Article 6. For instance, only legal entities duly registered according to the established procedure within the territory of the Russian Federation can organize gambling games. In turn, only legal entities that are part of a self-regulatory organization of gambling game organizers at bookmakers or a self-regulatory organization of gambling game organizers at betting houses can organize gambling games at bookmakers or betting houses.

Article 5 of this law sets out restrictions on organizing and conducting gambling games, including a ban on such activity when it involves information and telecommunications networks, including the Internet, and also when it involves means of communication, including mobile communication (with the exception of instances of accepting interactive bets and payouts on them by organizers of gambling games at bookmakers and (or) betting houses).

Failure to comply with the above requirements incurs various types of liability.

Article 171.2 of the Russian Criminal Code provides for criminal liability for natural persons who illegally organize and conduct gambling games, including by using information and telecommunications networks, including the Internet, or means of communication.

Under Article 14.1.1, paragraph 1, the same actions carried out by legal entities incur administrative liability and are punishable by a fine between 800,000 rubles ($11,350) and 1.5 million rubles ($21,300), including confiscation of the gaming equipment.

In addition, gambling websites may be subject to restriction of access within the territory of the Russian Federation.

According to paragraph 1 of the Regulation No. 228 of the Government of the Russian Federation of March 16, 2009 "On the Federal Service for Supervision of Communications, Information Technology, and Mass Media," Roskomnadzor is an executive body that supervises the media, mass communication, information technology, and communications.

As such, Roskomnadzor takes measures to restrict access to websites that contain information whose distribution in Russia is prohibited according to the procedure established in Article 15.1 of Russian Federal Law No. 149-FZ "On Information, Information Technologies, and Protection of Information."

In particular, paragraph 5 of this Article allows for non-judicial restriction of access to information that violates Russian Federal Law No. 244-FZ of December 29, 2006 "On the State Regulation of Activities Involving the Organization and Conduct of Gambling

Games and on the Introduction of Amendments to Certain Legislative Acts of the Russian Federation" and Russian Federal Law No. 138-FZ of November 11, 2003 "On Lotteries," which bans the organization and conduct of gambling games and lotteries that involve the Internet and other means of communication.

Pursuant to subparagraph a) of paragraph 5 of Decision-making rules for federal executive bodies authorized by the Government of the Russian Federation in relation to certain types of information and materials distributed through the Internet whose distribution in the Russian Federation is prohibited (approved by Russian Government Decree No. 1101 of October 26, 2012 "On the Uniform Automated Information System the Unified Register of Domain Names and Website References on the Internet), the basis for including domain names and website references related to gambling in the Unified Register of prohibited information is a decision of the Russian Federal Tax Service.

The information and material assessment criteria necessary for making such a decision are approved by Order No. 84/292/351/ MMV-7-2/461S of May 18, 2017 by Roskomnadzor, Russian Ministry of Internal Affairs, the Federal Service for Surveillance on Consumer Rights Protection and Human Wellbeing (Rospotrebnadzor), and the Russian Federal Tax Service.

These criteria are:

1. The existence of photo, video, audio and/or textual and graphic information encouraging to take part in a gambling game or lottery that is conducive to attracting the attention of a potential participant on a website where it is possible to take part in a gambling game or lottery, make bets, and receive payouts for winning.

2. The existence of photo, video, audio and/or textual and graphic information that provides an understanding of a gambling game or lottery; terms and conditions for taking part in a gambling game or lottery, including rules of conducting gambling games and terms and conditions for participating in lotteries; potential prizes; description of ways of transferring money to participate in a gambling game or lottery; and ways of receiving prizes on a given website where it is possible to take part in a gambling game or lottery, make bets, and receive payouts for winning.

3. The existence of a demonstration of taking part in a gambling game or lottery, with descriptions of the process and sequence of actions in a gambling game or lottery involving photo, video, audio, or images on a website where it is possible to take part in a gambling game or lottery, make bets, and receive payouts for winning.

4. The possibility of taking part in a gambling game or lottery on a website.

5. The possibility of transferring money (including electronic money) using electronic means of payment to participate in a gambling game or lottery, as well as a possibility of receiving (providing) a prize on a website.

6. The existence of a notice or information about the possibility of taking part in a gambling game or lottery using other domain names and (or) website references on the Internet on a website.
7. The existence of information and/or) computer programs on a website that make it possible to access a website or website page that contains forbidden information that meets the criteria specified in the paragraphs above.
8. The possibility of loading computer programs on a website or website page that make it possible to take part in a gambling game or lottery.

Online pirates

Under Russian law, Internet services that provide servers to CDNs are considered information intermediaries.

According to Article 1253.1(3) of the Russian Civil Code, an information intermediary that provides an opportunity to place materials on the Internet (e.g. a hosting service) does not bear responsibility for breaches of intellectual rights occurring as a result of materials being placed by a third party or on the instruction thereof. However, the responsibility is abrogated only if the information intermediary meets the following conditions:

1. They neither knew nor should have known that the use of the relevant result of intellectual activity or means of personalization in such materials was unlawful.
2. After receiving a written complaint by the copyright holder about a breach of intellectual rights with reference to the website page and/or to the web address where such material was placed, they took timely measures, which were necessary and sufficient, to end the breach of the intellectual rights. A list of the measures deemed necessary and sufficient, and the procedure for implementing them, may be established by law.

This means that, if an Internet service that provides pirate CDNs with their server capacities refuses to cooperate with copyright holders or if the measures taken are insufficient for stopping pirate activities, the following is possible:

· Civil liability is imposed on the Internet service provider;
· Administrative and criminal liability is imposed on those responsible;
· Demands to protect intellectual property rights are set (unrelated to the enforcement of civil liability penalties), including demands to delete information that violates exclusive rights or demands to restrict access to such information.

Within the framework of civil law relations, recovery of damages may be claimed from a party that has unlawfully used the result of intellectual activity (Article 1252(1)(3) of the Russian Civil Code). Demands for compensation can also be made (Article 1301 of the Russian Civil Code).

In addition, depending on the damages, such a party can incur administrative liability under Article 7.12 of the Russian Code on Administrative Offences or criminal liability under Article 146 of the Russian Criminal Code. These types of liability can be applied against the Chief Executive Officer of a company whose activity has caused damages as a result of the unlawful use of intellectual property.

As an example, in April 2018 the CEO of HOME-iPTV, Yuri Moskachev, was sentenced to three years' suspended imprisonment for an offence under Article 146(3)(v) and (g) of the Russian Criminal Code. According to the case file, the accused transferred the signal of the TV Channel Nostalgiya, for which the copyright holder was NTV Plus, using the TCP/IP protocol without an agreement with the copyright holder. The court later ordered Yuri Moskachev to pay NTV Plus $180,390.

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