



Sunday, 13 February 2022

Re: Public consultation on Worldwide Counterfeit and Piracy Watch-List

The Motion Picture Association (MPA) submits the following response to the public consultation on Counterfeit and Piracy Watch list issued on 15 December 2021 aiming to identify marketplaces outside the EU where counterfeiting, piracy or other forms of intellectual property abuses are common practice.

The Motion Picture Association is a trade association representing the interests of six international producers and distributors of films, home entertainment and television programs¹.

The creative sectors in Europe are dedicated to providing high quality content for millions of people worldwide, empowering Europe culturally but also economically. The sectors make vital contributions to European growth and jobs. Recent EU figures show that the core copyright-intensive industries generate 15 million jobs, contribute approximately 1 trillion to the GDP, which represents almost 7% of the European GDP.²

The sector is predominantly composed of SMEs and has proved to be more economically resilient than other sectors throughout the economic crisis. The 2019 update of the report shows that the shares of the IPR industries in EU employment and GDP are higher than in the 2016 study and confirms the increasing centrality of intellectual assets in modern economies.

¹ Netflix Studios, LLC., Paramount Pictures Corporation, Sony Pictures Entertainment Inc., Universal City Studios LLC, Walt Disney Studios Motion Pictures and Warner Bros. Entertainment Inc.

² EPO and EUIPO, "Intellectual property rights intensive industries and economic performance in the European Union", Industry Level Analysis Report, September 2019 (https://euiipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/IPContributionStudy/IPRintensive_industries_and_economic_in_EU/WEB_IPR_intensive_Report_2019.pdf).

However, the availability of unauthorized copyrighted material via illegal websites and other online services is a substantial problem for the creative industries, damaging its growth and investments in the sector. Médiametrie's latest report of April 2019 showed that nearly one out of four Internet users visits illegal video sites: 15.4 million pirates every month.³ Similar findings were reported by the UK IPO in March 2019: A quarter of the internet users had accessed illegal sources⁴. The online piracy industry has become increasingly professionalized and organized, operating with high revenues for those operating illegal sites and services. Infringing sites make hundreds of millions of euros from advertising while maintaining profit margins ranging between 86% and 93%.⁵ One of the studies estimated digital ad revenue linked to infringing content at \$111 million.⁶ Piracy also has a negative impact on consumers. A paper published by researchers at the Carnegie Mellon University on the impact of piracy on computer security, finds that the more users visited piracy sites, the more often their machines got infected with malware. Specifically, whenever they doubled the time they spent on piracy sites, they increased the number of malware processes running on their machines by 20 percent.⁷ Another study covered a nine-month probe where they observed malware from piracy apps stealing usernames and passwords, probing user networks and surreptitiously uploading data without consent⁸.

In order to combat infringement, action needs to be taken and the MPA would like to highlight our three key enforcement points in this regard.

MPA Key Enforcement Points:

- Platforms should take proactive measures to prevent the availability of infringing content;
- Platforms should have a clear obligation to verify the identity of all their business customers and to ensure that the contact details listed are up to date and accurate (transparency online);
- Intermediaries should take adequate steps to ensure their services are not used to facilitate infringement by ceasing the provision of their services (access, hosting, search, ads, domain names, proxies, etc.) to infringing services or services who have failed to meet the verification requirements.

³ <https://www.mediametrie.fr/en/suitable-legal-alternative-checks-growth-piracy>

⁴ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/867708/oci-tracker-2020.pdf

⁵ The Digital Citizen's Alliance study "good Money still Going Bad" from 2015.

⁶ <https://www.tagtoday.net/hubfs/Measuring%20digital%20advertising%20revenue%20to%20infringing%20sites.pdf?t=1507150221706>

⁷ <https://techpolicyinstitute.org/2018/03/13/piracy-and-malware-theres-no-free-lunch/>

⁸ https://mpaa.sharepoint.com/sites/researchhub/Lists/MPAAREports/DCA_Fishing_in_the_Piracy_Stream.pdf

The initiative for a world-wide Counterfeit and Piracy Watch-List is uniquely positioned to build on the central principle of the European Commission's 2017 Communication "Tackling Illegal Content Online, towards an enhanced responsibility of online platforms", which calls upon intermediaries to take greater responsibility to take proactive measures against infringing content. It is key that the focus remains on preventing the availability of infringing content.

In addition to having workable and efficient criminal procedures led by local law enforcement, and efficient civil processes, with deterring sentences so that the infringement can be stopped at source, an effective enforcement model requires a situation whereby all relevant intermediaries take a combination of proactive and reactive measures to deter, stop and prevent the availability of illegal content online and offline. Pirate services often operate in complete anonymity, making it impossible to locate them or tie them to a specific country. Even if the location of a service and, more importantly, its operator(s) can be established, effective enforcement action is often extremely challenging, if not impossible without the availability of no-fault injunctive relief with intermediaries who are best placed to help. Also, meaningful transparency and accountability are key. Online enforcement efforts are frustrated when intermediaries fail to take adequate steps to ensure that their services are not being used to facilitate copyright infringement, a problem compounded by the fact that many website operators and intermediaries operate anonymously. This is an issue that needs to be addressed by the EU legislator urgently and we therefore strongly encourage the inclusion of due diligence 'Know Your Business Customer' verification obligations for these services within the Digital Services Act. Moreover, EU should advocate that EU Third Countries proceed with, or at the very least, facilitate conservatory or evidential seizures of (i) any equipment dedicated to delivering pirated content to consumers, and (ii) any illicit proceeds belonging to pirate operators. Third countries should also take measures to strictly prevent foreigners from operating pirate services out of their territory.

The MPA's contribution will focus on online services as these are frequently extraterritorial in reach and have the most significant impact on the global legitimate market. This includes Piracy-as-a-Service (PaaS) which constitute a suite of off-the-shelf services that make it easy for would-be pirates to create, operate, and monetize a fully functioning pirate operation. Common examples are: content databases providing access to tens of thousands of infringing movies and TV series; IPTV dashboards and infrastructure; and ready-made website templates that facilitate setup of streaming websites with a one-time payment. However, physical markets remain a threat in many territories around the world.

The MPA’s contribution is further not intended to be comprehensive but instead reflects an attempt to identify sites and services particularly illustrative of the nature and scope of online content theft. We have, when possible, included the specific information requested, including popularity rankings and site traffic data from SimilarWeb⁹, as well as information on revenue sources, volume, among other details. It is important to note that these illegal services frequently change domains and use several proxies and/or mirror sites to circumvent law enforcement agencies’ and rightsholders’ enforcement efforts. The information indicated here reflects the situation during early 2022.

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⁹ SimilarWeb site traffic data cited here represents worldwide visits on desktop and mobile for January 2022. SimilarWeb is a market intelligence company that uses a combination of panel, public data sources, ISP and other data for its data estimations. See <http://similarweb.com> for more information.

ILLEGAL IPTV SERVICES

Illegal IPTV services typically offer hundreds of channels illegally sourced from providers worldwide alongside video-on-demand (VOD) content that includes unauthorized copies of movies and television series. Many of these illegal services are subscription based and run for profit, offering monthly or yearly packages to their user base. The technical infrastructure related to these services is often vast and complex, making the identification of content sources and service operators extremely challenging.

IPTV services have been a driving force in the emergence of a number of related illegal businesses including ones engaged in (i.) the re-sale of IPTV services and (ii.) individuals or businesses involved in the theft, distribution, and sale of channels.

IPTV services must rely on infrastructure and support services in order to function such as hosting providers, media servers, and panel hosting. Some of these services are used without the knowledge or approval of the legal service or product, however, some cater their business strategy towards illegal sites or ignore bad actors amongst their clients even when informed. As such, these rogue legitimate services become bad actors in their own right.

The marketing and sale of IPTV services is often carried out by a growing network of global IPTV service re-sellers who purchase subscriptions at wholesale prices and re-sell them for a profit, further complicating investigations. These resellers are also often involved in the promotion and support of the service with many also providing a limited number of channels to a given service. It is not uncommon to see re-sellers expand on their business model and move on to become an illegal IPTV service provider. The following notorious markets are a sampling of the global illegal IPTV ecosystem:

BIPTV.best and BestBuyIPTV.store – Vietnam. BestBuyIPTV is very popular in Europe offering country-specific channel lists, more than 10,000 channels from 38 countries, and 19,000 VOD titles in multiple languages. BestBuyIPTV is available on several platforms and operating systems, including iOS, Kodi, and Roku. It uses resellers, which leads to pricing variations, but the main site charges 70 USD per year for the service. BestBuyIPTV advertises that it provides services to over 900,000 users, 12,000 resellers, and 2,000 re-streamers worldwide.

King-IPTV.net –Tunisia. In operation since 2016, this service offers over 16,000 international channels and over 20,000 VOD titles. The site also offers IPTV restreaming, potentially feeding hundreds of IPTV retransmission/streaming websites or apps around the world. According to SimilarWeb data, traffic to the website in November 2021 stood at around 10,000 visits a month from over 7,000 unique visitors. As the website provides no other functions, such as providing

content, tech support, or updates, all these site visits are likely from people interested in purchasing the service.

Theking365tv.pro – North Africa. This is a long standing and well-known IPTV provider. There are over 2,200 International channels and an extensive VOD library. Their site used to have an average around 75,000 visitors a month according to SimilarWeb data. Now their website has approximately 15,000 monthly visits from nearly 10,000 unique visitors in November 2021, according to SimilarWeb data. As the website provides no other functions, such as providing content, tech support, or updates we believe, that the actual subscriber audience of this service is significantly higher than the SimilarWeb data would suggest once a user has purchased a subscription, the user accesses the infringing content on third-party media players, and this access is not counted by SimilarWeb.

GenIPTV – UK/Switzerland. One of the largest IPTV providers in the world, GenIPTV has over 10,000 international channels and 52,000 VOD titles. The service attracts over 95,000 visits a month according to SimilarWeb and has multiple resellers. Hosting of their front-end domain (genip.tv) is with Bandwidth Technologies in the UK, and back-end domain (geniptv.net) is hosted at Network Dedicated SAS in Switzerland.

IPTVForest.org – UK. This service offers a reseller program and customer plans starting at 10 EUR a month for premium TV channels and an extensive VOD collection. Traffic to the website used to be around 50,000 visitors a month, which is just used to purchase a subscription. Now the website has nearly 17,000 monthly visits from 8,000 unique visitors in November 2021, according to SimilarWeb data. The service has been using DataCamp LTD. infrastructure in the United Kingdom.

VolkaIPTV – Tunisia. Volka IPTV is a service that offers a reseller program and customer plans of various IPTV services that contain approximately 7,500 international TV channels, 17,000 movies, and 1,000 TV series for prices starting from 15 Euros per month. Volka IPTV has an estimated audience of over 60,000 users.

Gogo IPTV – Algeria. Gogo-Icône / Orca have been operational since 2017 and are among the largest piracy brands operating in MENA. The service is operated by a company with offices in North Africa and UAE. The service facilitates access to 3.4K pirate channels and 39K VOD library titles. The service attracts around 17K monthly visits.

LINKING AND STREAMING WEBSITES

Linking sites aggregate, organize and index links to content stored on other internet platforms. Linking sites that offer access to unauthorized movies and TV shows typically curate lists and indexes organized by title, genre, season and episode, and often use the official cover art to represent the content and create a user-friendly experience for their users. The sites then provide one or more active links so users can access the infringing content. Depending on the website, users are commonly presented with the options of either streaming the content in a video-on-demand format or downloading a permanent copy to their computer or other device. Many streaming linking sites also frame or embed video players from third-party websites, reducing the number of clicks needed to get to content for a more seamless user experience. Some also appear to be hosting the underlying content files on servers they control to maintain continuity of infringing offerings and to avoid takedowns on third-party file hosting sites. They largely derive their revenue from advertising and referrals.

An important development in this space in 2021 was the action taken by the Vietnamese authorities against the notorious and massively popular piracy site Phimmoi. We commend the Vietnamese authorities for the actions taken to date, but only time will tell whether Vietnam's criminal justice system will set a precedent it can follow with other very popular sites like Fmovies, Bilutvs.net, Motchill.net, and Dongphymtv.com.

Afdah.video

<i>Country ties</i>	<i>SimilarWeb Global</i>	<i>Rank</i>	<i>Avg Monthly Visits (SW)</i>
Singapore	22,016		2.75M

This pirate streaming site has been active since 2020 and is highly popular in the U.S., though the operator is based in Singapore. Afdah.info (which went offline but redirects to afdah.video) had over 7 million visits in August 2021 from nearly 1.5 million unique visitors according to SimilarWeb. It features movies, including content from MPA members, that can be searched easily with a filter and search engine. The site first started operating at afdah.com in 2013 and later at afdah.tv and afdah.to which were blocked in Singapore in 2018. Afdah.info was blocked in Singapore in February 2021 pursuant to a dynamic injunction covering variant domains over time.

Phimmoi.net

<i>Country ties</i>	<i>SimilarWeb Global</i>	<i>Rank</i>	<i>Avg Monthly Visits (SW)</i>
Vietnam	164,088		343,437

The main domains related to Phimmoi went offline. They received 954M total visits in the last

2 years, of which 98% originated from Vietnam. They had a local rank in Vietnam of 1.8K and 2.9K.

According to press reports, the founder and two IT employees of the notorious piracy site Phimmoi were identified and called in for questioning by the Vietnamese police in August 2021. The main domains of the website are offline, although one domain has redirected to another Vietnamese infringing website called Skyphim.me which has a ranking of 2,102 in Vietnam. There are copycat sites which continually hop domains, currently found at phimmois.co and ephimmoi.net. The original Phimmoi website, which offered thousands of unauthorized feature films and television series from the United States and all over the world, was one of the most popular pirate websites in Vietnam. At its peak of popularity between June 2019 and June 2020, Phimmoi was the 22nd most popular website in Vietnam and averaged over 69 million visits per month from 10.69 million unique visitors, according to SimilarWeb.

Egy.best

<i>Country ties</i>	<i>SimilarWeb Global</i>	<i>Rank</i>	<i>Avg Monthly Visits (SW)</i>
Egypt	7,269		166.8M

Egy.best is one of the oldest movie-linking websites in the Middle East and it remains one of its most popular in spite of enforcement actions (including by MPA) that took it offline in the spring of 2019. In December 2021, the site saw 166.8 million total visits (all domains combined), according to SimilarWeb data. Sister sites are active at egybest.xyz and egybest.com. The site uses geo-protection filters to stave off enforcement and Cloudflare’s reverse proxy to mask its IP location. It is hosted by IHOR Servers in Russia, and taking into consideration the perpetually growing number, it is anticipated that Egy.best will soon become the most popular and widespread of all pirate services on a global scale.

rezka.ag

<i>Country ties</i>	<i>SimilarWeb Global</i>	<i>Rank</i>	<i>Avg Monthly Visits (SW)</i>
Ukraine	758		93.09M

Formerly known as hdrezka.me, rezka.ag is a popular Russian language streaming website that offers 31,000 movies and 8,800 TV series, as well as cartoons and anime. Content can be searched and filtered by genre, year, and categories. The content is sourced from the website’s own video CDN and from other external video CDNs. The site is hosted at OrangeWebsite in Iceland. Approximately 10% of traffic to rezka.ag originates from Europe which accounts for 93.09 million monthly visits according to SimilarWeb data, and the previous iteration of the site has been blocked in Belgium and Spain. The site has been subject to blocking orders in Russia.

Seasonvar.ru

<i>Country ties</i>	<i>SimilarWeb Rank Global</i>	<i>Avg Monthly Visits (SW)</i>
Russia	2,241	35.76M

This is a Russian language streaming website which allows users to access content for free. The domain was created in July 2009. The website claims to have 20,881 accessible files. 6,276 of these files are series in high-definition and 1,635 of them have subtitles. A premium subscription is available for less than 1 EUR per month which allows users to download videos, use the mobile version, and gives access to HD videos without any advertising interruptions. Users can search for content alphabetically or by using the search bar on top of the page. The website is currently being hosted at Lantver Ltd. in Russia. Approximately 15% of traffic to seasonvar.ru originates in Europe, which amounts to over 35 million European visits a month, according to SimilarWeb data. The site has been subject to blocking orders in Russia.

Fmovies.to (formerly .se)

<i>Country ties</i>	<i>SimilarWeb Rank Global</i>	<i>Avg Monthly Visits (SW)</i>
Vietnam	789	78.15M

Fmovies, also branded as Bmovies, Bflix, and other names, is one of the most popular piracy streaming websites/brands in the world, providing unauthorized access to popular movies and TV series. The site's Alexa rank is 1,156 globally and 1,028 in the U.S., with 78.15 million global visits from six million unique visitors in December 2021, according to SimilarWeb. The site used to be hosted by BlueAngelHost at the Neterra data center in Bulgaria, but its host is now masked by Cloudflare's reverse proxy service. The site has been blocked in many countries, some due to MPA action, including India (which drove down its popularity ranking significantly), Australia, Denmark, Indonesia, Malaysia, and Singapore. The former domain, Fmovies.se, was blocked in nine countries.

Fullhdfilmizlesene.com

<i>Country ties</i>	<i>SimilarWeb Rank Global</i>	<i>Avg Monthly Visits (SW)</i>
Turkey	2,537	17.67M

This is a Turkish language website which enables users to stream movies without registration. The website is categorized by genre, new movies, most recommended, and most viewed. It also has a search bar which makes it easier for users to find the content they wish to view. The website streams content from several video hosting services and is regularly updated with new releases. Their current domain (.com) boasts 17.67 million visitors in December 2021, ranked 2,537 globally and the 70th most popular website in Turkey, according to SimilarWeb data. This site

uses Cloudflare’s services which masks the IP location of the website. Currently hosted at DGN Teknoloji A.S. in Turkey, Fullhdfilmizlesene.net is using a domain privacy and proxy service which hides the identity of the website operator.

Cima4u.ws

<i>Country ties</i>	<i>SimilarWeb Global</i>	<i>Rank</i>	<i>Avg Monthly Visits (SW)</i>
Egypt	1,528		37.02 million

An Arabic language website containing member studio content as well as Indian and Arabic movies. Their current domain (.ws) boasts 37.02 million visits in December 2021, and ranked 1,528 globally, according to SimilarWeb data. The site uses Cloudflare’s services which masks the IP location of the website. It is also using a domain privacy and proxy services which hides the identity of the website operator. Currently hosted at NTX in Russia. This site has been subject to blocking orders in Italy.

Gimytv.com

<i>Country ties</i>	<i>SimilarWeb Global</i>	<i>Rank</i>	<i>Avg Monthly Visits (SW)</i>
Taiwan	2,767		24.26M

The key domains of the highly popular Chinese language Gimy pirate website have now been redirected to Gimytv.com (the main domain), Gimytv.com, Gimy.cc, and Gimy.one, among other circumvention domains used by this pirate operator. Gimy’s global Alexa rank is 2,767 and the site is extremely popular in Taiwan with a local rank of 52. The Gimy website/domains had an aggregate of 24.26 million monthly visits in December 2021 from over 2 million unique visitors, according to SimilarWeb. A criminal referral was made in Taiwan in December 2020 and there was a raid in early 2021. Despite this enforcement action, which resulted in several key Gimy pirate domains going offline, Gimy has re-emerged with many mirror sites and alternative domains including those noted above. The case against the operators continues to be under investigation by Taiwanese prosecutors.

Gnula.nu/.se

<i>Country ties</i>	<i>SimilarWeb Global</i>	<i>Rank</i>	<i>Avg Monthly Visits (SW)</i>
Latin America	4,533		27.31 M

Gnula is a Spanish language streaming website popular amongst the Spanish speaking community. The site is ranked 4,533 globally and top 362 in Mexico with over 27 million visits across both sites in December 2021 according to SimilarWeb data. Gnula.nu houses infringing movie content while gnula.se houses infringing tv series, with content both in original language as well as dubbed

and subtitled in Spanish. The sites use Cloudflare’s reverse-proxy services to hide their real IP location. Over 10% of traffic to these sites comes from European IP addresses.

Dytt8.net, Dy2018.com, Dygod.net, and Ygdy8.com

<i>Country ties</i>	<i>SimilarWeb Global</i>	<i>Rank</i>	<i>Avg Monthly Visits (SW)</i>
China, Taiwan	5,560		27.32M

Dytt8.net is a consistently high-ranking pirate website in China with local rankings of 1,453 and 251 on Alexa and SimilarWeb, respectively, and it received 12.03 million visits in December 2021, according to SimilarWeb. With a very user-friendly interface and the provision of direct links to third-party storage providers, this website remains a particular threat to legitimate services both within and outside China. Dytt8.net is part of a group of related sites including dy2018.com, dygod.net, and ygdy8.com. The sites were referred to the National Copyright Administration of China (NCAC) in 2019 as part of its annual ‘Swordnet’ campaign and investigation though the investigation has been suspended after law enforcement were unable to identify an operator. Some of its servers are believed to be in Taiwan.

Rlsbb.ru

<i>Country ties</i>	<i>SimilarWeb Global</i>	<i>Rank</i>	<i>Avg Monthly Visits (SW)</i>
Iran	8,529		6.72M

This is an English language website, albeit using a Russian TLD. It offers a wide range of pirated content by regularly posting articles that contain movie details and links to cyberlockers. The website is organised as a blog, each article is contained in a category which enables users to quickly find titles. This site uses Cloudflare’s services which masks the IP location of the website. Currently hosted in the United States. This site has been subject to blocking orders in Portugal, Italy, Belgium, and Denmark.

Solarmovie.to

<i>Country ties</i>	<i>SimilarWeb Global</i>	<i>Rank</i>	<i>Avg Monthly Visits (SW)</i>
Switzerland	17,303		3.215M

This is an English language website which enables users to stream movies and TV series online for free. The latest releases, movies or TV series, are available for streaming on the website. The content is categorized by genre and by country. This site uses Cloudflare’s services which masks the IP location of the website. This site has been subject to blocking orders in Italy and the UK.

Sockshare1.com

<i>Country ties</i>	<i>SimilarWeb Global</i>	<i>Rank</i>	<i>Avg Monthly Visits (SW)</i>
U.A.E	180,170		296,036

This is an English language website which allows users to stream movie content illegally without registration. The website is categorized by genre, new movies, countries, years, and TV series. It also has a search bar which makes it easier for users to find the content they wish to view. The website streams content from different cyberlockers and is regularly updated with new releases. This site uses Cloudflare's services which masks the IP location of the website. Currently hosted at Blueangelhost Pvt. Ltd. which has their main Data Center located in Bulgaria and their head office is located in Dubai U.A.E, sockshare.net is using a domain privacy and proxy service which hides the identity of the website operator. This site has been subject to blocking orders in Denmark, UK, Portugal, Italy, and Belgium.

Cuevana3.io

<i>Country ties</i>	<i>SimilarWeb Global</i>	<i>Rank</i>	<i>Avg Monthly Visits (SW)</i>
Argentina	319		141.5M

This website is currently the most popular streaming site in the Spanish speaking part of Latin America, offering more than 7,000 titles including movies and television series. The website has been active since at least 2018. Cuevana3.io received over 141.5 million visits in December 2021 from 25.5 million unique visitors, according to SimilarWeb. The website's administrators monetize their infringing service through advertising served by many national and international ad networks. The hosting location is masked by Cuevana3.io's use of Cloudflare's reverse proxy service, but it is believed to be operated from Argentina.

Pelisplushd.net

<i>Country ties</i>	<i>SimilarWeb Global</i>	<i>Rank</i>	<i>Avg Monthly Visits (SW)</i>
Peru, Uruguay	597		70,5M

Pelisplushd.net is believed to be operated out of Peru; it appears related to an operator raided in 2019 in Uruguay and caters to several Spanish-speaking Latin American countries. Pelisplushd.net is a popular streaming site that offers a large library of titles including movies and television series. The website has been active since at least 2019. Pelisplushd.net received over 70.5 million visits in December 2021 from over 9.2 million unique visitors, according to SimilarWeb. The sites' operators monetize it through advertising served by many national and

international ad networks. The hosting location of Pelisplushd.net is masked by the use of Cloudflare’s reverse proxy service.

Topflix.vc

<i>Country ties</i>	<i>SimilarWeb Global</i>	<i>Rank</i>	<i>Avg Monthly Visits (SW)</i>
Brazil	2,627		22,79M

Topflix.vc is a popular streaming linking site that offers more than 5,000 infringing links to more than 1,500 titles including movies and television series. The website has been active since at least 2018. Its global Alexa rank is 7,679 with a local Alexa rank of 145 in Brazil. Topflix.vc had 22.79 million visits in January 2022 from 4.6 million unique visitors, according to SimilarWeb. The sites’ operators monetize it through advertising served by many national and international ad networks. The hosting location of topflix.vc is masked by the use of Cloudflare’s reverse proxy service.

CYBERLOCKERS AND STREAMING VIDEO HOSTING SERVICES

Cyberlockers and streaming video hosting services are websites that provide centralized hosting for infringing content which can be downloaded and/or streamed by the public. The distribution process is simple. A user, or the operator of an infringing third party site, uploads an infringing file and the cyberlocker or video hosting service gives the user a link for accessing the file. The user, or operator of an infringing third party site, posts the link on one or several linking sites. Clicking the link will either initiate a download, a stream, or both of the uploaded file.

It is common for links to illegal copies of movies and television programs to be widely disseminated across the Internet, not just via linking sites, but also via applications, social media platforms, forums, blogs and/or email which are available through computers, mobile devices, smart TV, and other hardware platforms. Complicating enforcement, cyberlockers and video hosting services frequently provide several unique links to the same file and use proxy services to mask the locations of where the site and content are hosted. If a content owner sends an infringement notice for one of the links, the others may remain up, enabling continued infringement. No meaningful measures are in place to prevent the upload and publication of clearly infringing content. On top of that, many cyberlockers and video hosting services do not respond at all to takedown notices.

Many file hosting services, in particular video streaming hosting services, heavily monetize the dissemination of infringing content. The content is served with an abundance of advertisement in the form of pop-ups, pop-unders, pre-roll ads, banners, etc. These ads generally are aggressive and adblockers are required to be turned off. At the same time, uploaders of unlawful content are paid

by these filehosting services based on reward schemes that apply certain amounts per views/downloads of the uploaded files.

VK.com

<i>Country ties</i>	<i>SimilarWeb Global</i>	<i>Rank</i>	<i>Avg Monthly Visits (SW)</i>
Russia	16		1.463B

VKontakte, or VK.com, is the leading social networking site in Russia and Russian-speaking territories and is a source of illegal distribution of movie and television files. Searching for content is relatively easy and the site supports streaming playback through embedded video players. In September 2016, VK took steps to limit access to third party applications dedicated to downloading content from the site, which has made it more difficult for users to download content directly. VK blocks infringing sites from accessing videos stored on VK, but third-party pirate sites can still stream illegal content from another service operated by the same parent company. Whilst VK is generally responsive to takedown notices, it continues to be a significant infringement hub; MPA and its member companies continue to find thousands of infringing files on the site each month. Available worldwide in multiple languages, including English, it is one of the most visited sites in the world. MPA welcomes developments towards introducing content protection measures by VK parent company – VK Group (previously known as Mail.ru Group, rebranding took place in October 2021). That includes joining the anti-piracy memorandum in November 2018. The memorandum proved to be an efficient voluntary instrument to remove links to infringing content from search results. The legislation that should replace the voluntary MOU procedure is pending; the adoption of the respective law is expected in the first half of 2022. Among other measures, VK provides a content filtering system that allows rights holders to search and remove the infringing content. However, the tool lacks proactive functionality to help with the overall prevention of piracy. The site operates on corporate-owned servers in Russia. The site has been blocked subject to criminal blocking orders in Italy.

Uptostream.com - Uptobox.com

<i>Country ties</i>	<i>SimilarWeb Global</i>	<i>Rank</i>	<i>Avg Monthly Visits (SW)</i>
U.A.E.	1,677		37.87 M

Uptobox.com is a direct download cyberlocker, but it also allows streaming and embedding via its related site, uptostream.com. The site offers a relatively inexpensive premium account for €25 (€20 during COVID-19 lockdown) a year with unlimited storage and no ads. It is widely used among pirate sites in Europe to generate revenue, utilizing ads on their own sites with embedding, or linking downloads through networks that pay per link visited such as adf.ly. This popular site has a global SimilarWeb ranking of 1,677 and France ranking of 203. Uptobox.com had 37.87

million visits from nearly 11.38 million unique visitors in December 2021, according to SimilarWeb data.

Uploaded.net

<i>Country ties</i>	<i>SimilarWeb Global</i>	<i>Rank</i>	<i>Avg Monthly Visits (SW)</i>
Switzerland	4,099		19.45 M

Uploaded.net is a direct download cyberlocker with over 19.45 million visits from 5.6 million unique visitors in December 2021, according to SimilarWeb. Uploaded.net incentivizes its users to upload infringing files with various rewards: up to approximately 50 USD per 1,000 downloads; commissions on sales of premium memberships they have referred (60 percent for the initial sale, 50 percent for subsequent renewals); and rewards based on the size of files uploaded (to encourage the upload of television episodes and movies). The website operates through multiple redundant domains that include Uploaded.to and Ul.to. The site is blocked in Italy and India. The Court of Justice of the European Union (CJEU) ruled in July 2021 that certain factors present in Uploaded's business model can result in direct liability but left the final decision to the German Federal Court of Justice, which will continue hearing the case in February 2022. It is owned by Swiss company Cyando AG and is hosted by Eweka Internet Services B.V. in the Netherlands.

Mixdrop.co

<i>Country ties</i>	<i>SimilarWeb Global</i>	<i>Rank</i>	<i>Avg Monthly Visits (SW)</i>
Russia	1,655		34.96M

Servers for this video hosting service are in Russia with MS Networks LTD. Mixdrop has a personal dedicated affiliate program, MixPartners, advertising the opportunity to earn up to 1,000 USD a week. SimilarWeb indicates that Mixdrop.co attracted over 39.1 million visits from 12.66 million unique visitors in August 2021, increases of approximately one-third in comparison to last year.

Streamtape.com

<i>Country ties</i>	<i>SimilarWeb Global</i>	<i>Rank</i>	<i>Avg Monthly Visits (SW)</i>
Switzerland	1,375		32.19M

Streamtape is a video hosting service offering unlimited storage and bandwidth. Streamtape operates a partner program, through which it is possible to earn a fixed amount per 10,000 downloads or streams, depending on the country of origin. As a result, this platform has become a

popular place for the unauthorized sharing of media content. According to SimilarWeb, in August 2021 streamtape.com had 36.01 million visits from 11.76 million unique visitors.

Netu.io

<i>Country ties</i>	<i>SimilarWeb Global</i>	<i>Rank</i>	<i>Avg Monthly Visits (SW)</i>
Belize	42,326		1.79M

Hqq.to

<i>Country ties</i>	<i>SimilarWeb Global</i>	<i>Rank</i>	<i>Avg Monthly Visits (SW)</i>
Belize	1,833		32.91M

Waaw.to

<i>Country ties</i>	<i>SimilarWeb Global</i>	<i>Rank</i>	<i>Avg Monthly Visits (SW)</i>
Belize	-		26.39M

Netu.io is a video hosting service heavily used for disseminating copyright protected content. Netu.io also relies on the domains hqq.to and waaw.to. Netu offers a reward scheme for uploaders of popular content with the highest tier offering 80 NetuCoin (80\$) per 10.000 views. The domain waaw.to is used to access the streaming page itself through direct URL or in an iframe HTML code while the domain hqq.to is to be used in an iframe HTML code by a linking site. Netu allows its users to customize the streaming domain by adding a CNAME record through CloudFlare DNS services to bypass ISPs/government blocking measures and to customize the player to create their own visual branding. The player itself also features a search function.

Baidu Pan – China.

Piracy over cloud storage services in China represents an increasing concern for copyright holders, with large quantities of infringing content being stored on Baidu Pan, Baidu’s cloud storage service, and then disseminated through popular Chinese social media platforms and piracy linking sites. Baidu holds more than an 80 percent share of China’s search engine market, and it is the second largest search engine in the world by user base. Given its market dominance, it is critical to ensure that Baidu has rigorous content protection standards and practices in place, cooperates fairly and transparently with rights holders, and sets the right example for other internet businesses. Although Baidu provides tools for taking down unauthorized motion picture and television content, and demoting infringing video listings of new release titles on Baidu search results, the average time it takes Baidu to remove infringing links from Baidu Pan is two or more days, which is inexplicably long considering the resources available to Baidu. Additionally, rights holders are sometimes forced to send Baidu thousands of follow up notices for proliferating copies of a single piece of content. Finally, Baidu should apply rigorous filtering technology to identify infringing content, to take more effective action to suspend or terminate repeat infringers.

PIRACY APPS

An ecosystem has emerged around piracy apps for mobile, handheld, and other compatible devices. Websites provide the portal through which the app can be downloaded. Once downloaded and/or registered/subscribed, these apps provide users access to myriad pirate movie and television titles. These apps attract millions of consumers who often pay for subscriptions.

IPTV Smarters – India. IPTV Smarters is an IPTV turnkey solution. Its IPTV software solution, which trades under the brand name WHMCS Smarters, offers website design and development, customized apps on several platforms (including iOS, Android, and Windows), and a billing platform. The operators also offer an IPTV media player through the IPTV Smarters Pro APP. The IPTV Smarters Pro APP and WHMCS Smarters were developed by New Spark Technology, a company based in Mohali, India.

EVPAD – China. EVPAD (ievpad.com) is an Android app that incorporates P2P technology as well as EVPAD-branded apps to enable access to more than 2,000 movies and TV titles and over 1,000 live international channels. EVPAD has a large pool of resellers worldwide, and a global userbase. It has recently established a new brand, “EVBOX,” targeting Taiwanese & European customers.

Shabakaty – Iraq. Shabakaty is a suite of apps developed by Iraq’s largest ISP, Earthlink. Marketed via Shabakaty.com, the Shabakaty apps offer unauthorized access to pirate TV, movie, and music content from a range of copyright holders. According to SimilarWeb, Shabakaty attracted 5.9 million visits from 387,524 unique visitors in December 2021.

SVI Cloud – China. SVI Cloud is an IPTV service which includes an Android device manufactured in China and application called SVI GO/MO offering access to pirated VOD and live TV channel content. SVI Cloud has a large pool of resellers worldwide and a userbase that is global but particularly strong in the Asia Pacific region.

TVMOB – Pakistan. Previously known as TVTap, this service offers a free Android streaming application with access to over 500 live channels. According to SimilarWeb, the app saw over one million visits in the last year at its main domain, tvmob.net, which facilitates access to the infringing application. The app is monetized through advertising placed within its content offerings. The site relies mostly on servers hosted by Amaratu in the Netherlands but is believed to have operators in Pakistan.

Unblock Tech (unblocktech.com) – China. Unblock Tech’s core business is the manufacture and distribution of the ‘Ubox’ series of ISDs. Ubox runs on Android and incorporates peer-to-peer (P2P) technology as well as UB-branded apps to enable access to pirated VOD and live TV channel content. It appears that Unblock Tech has a large pool of resellers worldwide, and a userbase that is global but particularly strong in the Asia Pacific region. In 2021, the New Taipei District Court ordered a domain registrar outside Taiwan to seize piracy domains related to Unblock Tech through a mutual legal assistance treaty (MLAT) and instructed the local internet administrator (TWNIC) to disable the access of local users to the piracy domains through local ISP networks.¹⁰

Telegram – UAE. Telegram is an instant messaging service available on Windows, iOS, Android, and Linux that allows users to create channels and groups, upload and share content, and run livestreams. In January 2021, Telegram’s active userbase exceeded 500 million accounts, with particularly significant reach in Russia, India, and Indonesia. One of its growth drivers is the presence of copyrighted content on the platform, core features that support the sharing and discoverability of unauthorized files, protect anonymity of uploaders, and make consumption easy and convenient supercharging the circulation of infringing content, whether deliberate or accidental. While there has been improvement in compliance rates for the removal of infringing links and channels, Telegram’s response to takedown notices varies greatly, from almost immediate to none in spite of multiple re-notifications. Furthermore, instances of online piracy accessed through Telegram remain high overall due to the ease with which the same content can be uploaded to channels, discovery of infringing content that is facilitated by piracy bots and inconsistent enforcement of its repeat infringer policy. The European Commission placed Telegram on its Counterfeit and Piracy List in 2020. Enforcement actions have been brought successfully in India, Israel, and Italy requiring Telegram to block access to infringing content. Telegram is a platform of immediate concern.

¹⁰ <https://news.ebc.net.tw/news/living/294887> (in Chinese).

PEER-TO-PEER NETWORKS AND BITTORRENT PORTALS

Users of Peer-to-peer (P2P) or file-sharing networks employ software to allow them to join “swarms” of other users who are distributing a particular title (movie, TV show, and or types of content). As each user downloads pieces of the file, his/her computer distributes the pieces to others in the swarm. Both uploading and downloading of copyright protected content without authorization from the rightsholder is a violation of the EU legal framework. The most popular P2P software is “BitTorrent.” BitTorrent websites facilitate file sharing by organizing and indexing torrent files and initiating and managing the download process. The BitTorrent landscape remains popular, serving millions of torrents to tens of millions of users at any given time. Just like streaming/linking sites, they largely derive their revenue from advertising.

1337x.to

<i>Country ties</i>	<i>SimilarWeb Global</i>	<i>Rank</i>	<i>Avg Monthly Visits (SW)</i>
Global	432		76.90M

This is a Torrent website which allows users to download movies, TV Shows, games, music, apps, and other files. Users are able to sort the content by genre, year, language. Bitcoin donations are accepted to help finance the website. This site is being masked behind Cloudflare that curbs the rightsholders' ability to identify its actual host. The site hosts advertisements from popular ad network RevenueHits, based in Israel. 1337x.to is amongst the highest ranked and most visited pirate sites across European countries according to SimilarWeb data. The site received 71.80 million visits from nearly 10 million unique visitor in November 2021, according to SimilarWeb data. 1337x.to has been blocked in many European countries including Italy, Spain and Belgium.

Gimmepeers.com

<i>Country ties</i>	<i>SimilarWeb Global</i>	<i>Rank</i>	<i>Avg Monthly Visits (SW)</i>
Global	104,435		446,733

Gimmepeers.com (formally Bitsoup.org) – Canada. Gimmepeers.com is a popular, subscription-based torrent website that provides access to 29,000 torrent files across a range of content including movies, TV series, music, and software. Gimmepeers is using Cloudflare’s reverse proxy service and has been in operation since 2017. The site has averaged over 500,000 visits per month during the period February 2021 - January 2022 with over 75 percent of visits coming from the United States, UK and Canada.

ThePirateBay.org

<i>Country Ties</i>	<i>SimilarWeb Global</i>	<i>Rank</i>	<i>Avg Monthly Visits (SW)</i>
Global	1,403		33.04M

Available in 35 languages, ThePirateBay.org (TPB) is one of the largest BitTorrent websites on the internet. Swedish prosecutors filed criminal charges against TPB operators in January 2008 for facilitating violations of the copyright law. The operators were found guilty in March 2009, sentenced to prison and the rightsholders awarded multi-million-euro damages. The judgment was affirmed by the Svea Court of Appeal and the European Court of Human Rights. In 2012, one of the site's co-founders was found guilty on hacking charges in Sweden after his extradition from Cambodia. He was then extradited to Denmark and sentenced for similar charges in 2013. In addition, another operator was captured in 2014 in Sweden. The last operator was apprehended in Thailand and extradited to Sweden in 2014 for an outstanding sentence. TPB continued to combat efforts to protect the interests of copyright holders by changing their top-level domain to .SE in an effort to thwart site blocking orders. The website has been reported to have multiple alternative domains hosted in various countries around the world over the years. In December 2014, TPB's hosting provider was raided and the site went offline, only to reappear online a few months later under various TLDs. While it has never returned to its number one position, it had a significant comeback after KickAssTorrents and torrentz.eu went offline in 2016. The hosting location of the website is concealed by Cloudflare's reverse proxy service and by its hosting provider Shinjiru Technology of Malaysia. As of March 2016, courts in Luxembourg and Germany ordered registrars to disable a few dozen domain names used by The Pirate Bay.

In June 2017, the Court of Justice of the European Union (case C-610/15) confirmed that The Pirate Bay communicates to the public, directly infringing copyright. In December 2017 the Swedish Supreme Court confirmed that domains can be seized under Swedish law, upholding the Court of Appeals' decision to seize piratebay.se and thepiratebay.se from one of the original founders.

The Pirate Bay is blocked in at least 23 countries: Argentina, Australia, Austria, Belgium, Denmark, Finland, France, Greece, Iceland, India, Indonesia, Ireland, Italy, Malaysia, Netherlands, Norway, Portugal, Romania, Russia, Singapore, Spain, Sweden, and the United Kingdom.

Rutracker.org

<i>Country ties</i>	<i>SimilarWeb Global</i>	<i>Rank</i>	<i>Avg Monthly Visits (SW)</i>
Russia	936		41.13M

This BitTorrent portal was launched in 2010 in response to the takedown of Torrent.ru by the Russian criminal authorities. Rutracker.org is a BitTorrent indexing website with 13.9 million

registered users and 2 million active torrents. It is one of the world's most visited pirate websites, with a global SimilarWeb ranking of 977 and a local rank of 124 in Russia. According to SimilarWeb, Rutracker.org had 39.53 million visits from nearly 6 million unique visitors in November 2021. The site is hosted in Russia by Dreamtorrent Corp., a Seychelles company that is also believed to be the owner of the site. The site has been subject to blocking orders by the Moscow City Court. Approximately 15% of all traffic directed to rutracker.org originates from Europe, which counts for at least 6 million visitors a month from Europe.

Rutor.info

<i>Country ties</i>	<i>SimilarWeb Global</i>	<i>Rank</i>	<i>Avg Monthly Visits (SW)</i>
Switzerland	2,730		17.29M

Previously known as Rutor.org. A Russian language website where torrents that have been uploaded in the last 24 hours can be found on the homepage of the website. The domain is using a domain privacy service which hides the identity of the website operator. The website is blocked in Denmark, Portugal, and Russia.

Zooqle.com

<i>Country ties</i>	<i>SimilarWeb Global</i>	<i>Rank</i>	<i>Avg Monthly Visits (SW)</i>
Russia	10,786		5.593M

This is a Russian language Torrent website which allows users to download movies, TV Shows, games, music, apps, and other files. Users are able to sort the content by genre, year, and language. A total of 34 million verified torrents are made available among which 50,000 movies & 1,775 TV shows. The website is using Cloudflare's services to mask their IP location. The site is hosted at VenomDC in Bulgaria. Approximately 20% of all traffic directed to zooqle.com originates from Europe, which counts for at least 2 million visitors a month from Europe, according to SimilarWeb data.

YggTorrent

<i>Country ties</i>	<i>SimilarWeb Global</i>	<i>Rank</i>	<i>Avg Monthly Visits (SW)</i>
Morocco	2,238		16.08M

YggTorrent is the biggest Francophone BitTorrent Community. According to Similar Web data, in December 2021, it attracted 16.08 million visits. The visits mainly originate from French speaking countries such as; France (63.99%), Belgium (7.43%), Canada (6.54%), and Switzerland (3.17%). The website is ranked 124 in France and 2,238 globally.

Baixafilme.net

<i>Country ties</i>	<i>SimilarWeb Global</i>	<i>Rank</i>	<i>Avg Monthly Visits (SW)</i>
Brazil	7,560		8.1M

Baixafilme.net is a popular torrent website that offers more than 18,000 titles including movies and television series. The website has been active since at least 2011. The site received 48.6 million visits over the last 6 months – an average of 8.1 million visits and 1.8 million unique visitors per month, according to SimilarWeb. The sites’ operators monetize it through advertising served by many national and international ad networks. The hosting location of the site is masked Cloudflare’s reverse proxy service.

HOSTING PROVIDERS

Hosting companies provide the essential infrastructure required to operate a website. Websites engaged in massive copyright infringement depend on a hosting provider to make their website easily viewable and to provide high quality streaming videos. The hosting provider has the ability to take down websites engaged in massive copyright infringement offline. The hosting providers we come across most often used by services that massively commit copyright infringement through the content hosted on their networks are hosted in Europe, in particular the Netherlands, France and Germany.

Host-palace.com – Netherlands; **India**. This service is considered a “bulletproof” hosting provider for pirate sites. Many piracy sites including watchseries.movie (and its alternative domains gowatchseries.ac and gowatchseries.bz), kebioskop21.club, and filmapik.id have previously, or currently, used HostPalace to host and serve video content. HostPalace does not respond to takedown requests.

Private Layer, Swiss Global, and affiliated companies – **Panama/Switzerland**. For years, Private Layer, Swiss Global, and affiliated companies have served as trusted partners for infringing sites. Private Layer and Swiss Global operates in anonymity, refusing to respond to outreach notices. They host a large number and array of infringing sites. The company is registered in Panama and uses servers located in Switzerland.

DDoS-Guard.net – **UK, Russia** This service is also considered a “bulletproof” hosting provider for pirate sites. Many piracy sites including s.to and bs.to are relying on Ddos-Guard’s services for hosting. It does not respond to takedown notices. This service also operates as Cognitive Cloud LLP (UK).

Mnogobyte – Russia. Mnogobyte provides infrastructure to various infringing CDNs and websites. The entity has been named in connection with VideoCDN, Kodik, Videoframe, and popular pirate streaming services including HDrezka and Kinogo.

REGISTRIES

Registries are organizations that manage the registration of domain names within the domains for which it is responsible, controls the policies of domain name allocation, and technically operates its domain. It can also fulfill the function of a domain name registrar or may delegate that function to other entities. Websites engaged in massive copyright infringement depend on a registry to provide the domain name required to operate. The registry, directly or via its contractual relationship with registrars, has the ability to withdraw or disable domain names used by websites engaged in massive copyright infringement.

.TO Registry – .TO is the ccTLD of the Island kingdom of Tonga. The government of Tonga sells domains in its ccTLD to any interested party. The .to ccTLD is administered by the Tonga Network Information Center (TONIC). Examples of infringing websites operating with .TO TLD include rarbg.to, fmovies.to, kinox.to, serienstream.to, 1337x.to, torrentgalaxy.to, solarmovie.to, ibit.to, and bs.to.

.TV Registry – .TV is the ccTLD for Tuvalu. It is marketed commercially for use in television or video-related sites, it can however be registered and used for any purpose. Examples of infringing websites operating with .TV TLD include pelispedia.tv, hdfilme.tv, cima4u.tv, and lostfilm.tv.

.RU Registry – .RU is the ccTLD for the Russian Federation. The control of .RU is assigned to the Coordination Center for TLD RU (CC for TLD .RU), the current official registry. Examples of infringing websites operating with .RU TLD include: rlsbb.ru, 33bukvi.ru, tvunderground.org.ru, kinoflix.ru, films-torrent.ru, and hd-videobox1.ru

.BZ Registry - .BZ is the ccTLD for Belize, and it is administered by the University of Belize. Currently, the registry is in Belize, but the registry's primary marketing target are services outside of the country, as "meaning business". Examples of infringing websites operating with .BE TLD include yggtoorent.bz and livenettv.bz.

.IO Registry - .IO is the ccTLD for British Indian Ocean Territory. The domain is operated commercially by Afilias, a domain name registry subsidiary of Ethos Capital. Examples of infringing websites operating with .IO TLD include cuevana2.io, cuevana3.io, and lookmovie.io.

AD-NETWORKS

The companies connecting advertisers to infringing websites contribute to the prevalence and prosperity of infringing sites by providing funding to the operators of these sites through advertising revenue. Although many ad networks have established best practices and guidelines to address ads supporting or promoting piracy, detecting illicit sites, and enforcing own terms continues to have its challenges.

1XBET - Russia. 1XBET is a Russian gambling site that has begun supporting some of the earliest releases of infringing camcords. It has become the third most active online advertiser in Russia. Reportedly, the online casino pays to insert visual and audio advertisements into the releases incentivizing camcord piracy. 1XBet's watermark with promotion codes is 'burned' into the video files of infringing camcord recordings. Piracy is used as a vehicle to support this online gambling giant. Within 6 months in 2019 alone, more than 1200 advertisements for 1XBET could be found on structurally infringing websites¹¹. 1XBET is blocked in Russia; its alleged beneficiaries are under criminal investigation for illegal gambling and declared fugitives at the request of the Russian Investigative Committee. Last but not least, 1XBET still attempts to launder its reputation by sponsoring football events, most recently as an official sponsor of the African Cup of Nations.

Mgid – Ukraine. Mgid, formerly MarketGid, is an advertising company based out of Ukraine. Mgid has been directly engaged by copyright infringing platforms such as kissanime.ru and rezka.ag amongst others and are one of the most popular ad networks amongst pirate sites.

GetB8.com – Russia. Getb8.com is an online casino that has been suspected, like 1xBet, of financially supporting infringing camcord release groups by paying them to integrate burned-in advertisement into cam-ripped video files.

AdsKeeper – Georgia. AdsKeeper is an ad network that is heavily used by pirate services and likely generates high levels of revenue for illicit streaming operators. AdsKeeper has been linked to various named pirate operations including vidoza.net, magnetdl.com, 1337x.to and dood.sh.

Propeller Ads – Cyprus. Although primarily based in Cyprus, Propeller Ads is an ad network operated by Russian individuals that has subsidiary offices in the Czech Republic and the Isle of Man. The company is a dominant ad provider to streaming cyberlockers such as dropapk.to, voe.sx, streamtape.com and streamzzz.to.

¹¹ See White Bullet post of 7 January 2020, available at <https://www.white-bullet.com/1xbet-ads-appeared-on-1-200-pirate-sites-in-past-six-months>.

PIRACY AS A SERVICE

Piracy-as-a-Service (PaaS): PaaS offerings constitute a suite of off-the-shelf services that make it easy for would-be pirates to create, operate, and monetize a fully functioning pirate operation. PaaS providers lower the barriers to entry into commercial piracy. They include in particular: (i) website templates that facilitate setup of streaming websites; (ii) content management systems (CMS) which are databases providing access to tens of thousands of infringing movies and TV series, in exchange for payment of a fee or a cut of the advertising revenue; (iii) dashboards that allow an illegal IPTV operator to oversee the infrastructure of their service (including monetization, content-hosting servers, and user interactions); (iv) hosting providers that provide a safe haven for pirates because they do not respond to DMCA notices of copyright infringement; (v) video hosting services that obscure links to infringing content (instead of providing a single weblink for each piece of content, a PaaS video host may break up the content and host it across dozens of random links to inhibit its takedown, without inhibiting its access via a streaming site that pieces the content back together); and (vi) decentralized streaming software that acts as a third party tool between a streaming site and a cyberlocker or video host, allowing for quicker upload of content with a large variety of cyberlockers and video hosting services.

2embed.ru – Russia –24999. 2embed.ru is a pirate content management system (CMS) library used by at least 30 sites that collectively receive over 200 million visits per month according to SimilarWeb. The site's CMS crawls various websites and search engines to find movie and TV show streaming links which are then stored in their database and served through their API service.²¹ It offers a large library of movies via streaming, direct link, or embedding. 2embed provides its service for free and remunerates itself by inserting ads.

Njal.la – 1337 Services (St Kitts and Nevis). Njalla (located at njal.la) acts as an intermediary for domain name registration purposes, procuring and owning domain names on behalf of others to provide them with anonymity. Njalla was founded and is owned by Peter Sunde, a founder of The Pirate Bay. Njalla is prominent among pirate services, with customers such as FlixTor.is, GetPopcornTime.is, and yggtorrent.is

Fembed.com – Vietnam. Fembed is a CMS service that launched in early 2018 and is commonly used by pirate movie streaming websites. Fembed is popular worldwide with an average of 6 million monthly visitors, according to SimilarWeb (note, however, that these SimilarWeb numbers only reflect end-user traffic that comes directly to its site and not to traffic that passes through its CMS customers that operate their own streaming services). Fembed generates revenue either from advertising – by inserting ads in Fembed's media players embedded in its customers' illegal streaming services – or by charging a premium fee that allows its customers to generate revenue by inserting their own ads.

Collaps.org – Russia. This popular pirate video CDN has gained attention since Moonwalk, another prominent Russian CDN, went offline in 2019 following a concerted multi-national enforcement action. The popular streaming video website zetflix.top hosting currently uses Collaps.org. This off-the-shelf piracy facilitation service makes it easy for would-be pirates to create and monetize a fully functioning pirate service.

TELEVISION OPERATORS

There are generally two methods via which TV channel operators or distributors infringe copyright. Mostly TV channel operators illegally broadcast movie or television titles, purchased on DVD or illegally obtained otherwise (for example: downloaded from pirate websites) without the rightsholders' authorization. Another method is where TV channel distributors are rebroadcasting entire TV channels without the necessary rightsholders' authorization. Those TV channels are usually stolen by redistributing the signal originating from a single subscription, or directly from satellite networks. This issue can be witnessed among both authorized and unauthorized TV distributors.

SatCon Africa – Gabon and Central Africa. SatCon Africa is a television operator based in Gabon recognized to be infringing IP laws and the rights of third parties. While some SatCon channels are properly licensed from their rights holders, SatCon also offers several pirated television channels (particularly channels that offer appealing entertainment content such as movies, TV series, and sports). SatCon steals this content from legitimate local distributors or satellite signals and illegally rebroadcasts it. SatCon is estimated to serve between 40,000 and 50,000 users.

Excaf Telecom – Senegal. Excaf Telecom is an infringing digital terrestrial television (DTT) operator, located in Senegal. Excaf Telecom has approximately 100,000 subscribers. Excaf Telecom offers pirate television channels that offer appealing entertainment content such as movies, TV series, and sports. The channels are pirated via various methods: Excaf Telecom rebroadcasts from legitimate local distributors without authorization or directly steals from satellite signals before illegally redistributing them, which causes significance damage to the rightsholders.