



October 7, 2022

Ariel Gordon
Director for Innovation and Intellectual Property
Office of the U.S. Trade Representative
600 17th Street, NW
Washington, D.C. 20508

Re: Request for public comment on
the 2022 Special 301 Out of Cycle
Review of Notorious Markets
Docket No. USTR-2022-0010

Dear Ms. Gordon:

The Motion Picture Association (MPA) submits the following response to the request issued August 26, 2022, by the Office of the U.S. Trade Representative (USTR), inviting submissions from the public on notorious markets outside of the United States.

MPA serves as the global voice and advocate of the motion picture, television, and streaming industries. It works in every corner of the globe to advance the creative industry, protect its members' content across all screens, defend the creative and artistic freedoms of storytellers, and support innovative distribution models that bring an expansion of viewing choices to audiences around the world.¹ Its member studios are: Walt Disney Studios Motion Pictures; Netflix Studios, Inc.; Paramount Pictures Corporation; Sony Pictures Entertainment Inc.; Universal City Studios LLC; and Warner Bros. Entertainment Inc.

The American motion picture and television industry is a major U.S. employer that supported 2.2 million jobs and \$192 billion in total wages in 2020. This includes 273,000 jobs in the core business of producing, marketing, and manufacturing motion pictures, television shows and video content, as well as 480,000 jobs in the distribution of motion pictures, television shows, and video content to consumers, including people employed at movie theaters, television broadcasters, cable companies, and online video services. The industry also supports indirect jobs in the thousands of companies that do business with the industry, such as caterers, dry cleaners, florists, hardware and lumber suppliers, and retailers. This is a nationwide network of mostly small businesses representing every state in the country, with 89 percent employing fewer than 10 people.

¹ MPA works in close partnership with The Alliance for Creativity and Entertainment (ACE), the world's leading coalition dedicated to protecting the dynamic legal market and reducing digital piracy. Driven by a comprehensive approach to addressing piracy through criminal referrals, civil litigation and cease-and-desist operations, ACE has achieved many successful global enforcement actions against illegal streaming services and sources of unauthorized content and their operators. Drawing upon the collective expertise and resources of more than 40 media and entertainment companies around the world, and reinforced by the content protection operations of the Motion Picture Association, ACE protects the creativity and innovation that drive the global growth of core copyright and entertainment industries. For more information, please visit www.alliance4creativity.com.



The American motion picture and television production industry remains one of the most highly competitive in the world. In 2020, the enduring value and global appeal of U.S. entertainment earned \$17.3 billion in audiovisual exports. Today there are over 832 legitimate streaming services providing audiovisual content to consumers online, accommodating all manner of consumer viewing preference. Moreover, this industry is one of the few that consistently generates a positive balance of trade: in 2020, that services trade surplus was \$9.6 billion, or three percent of the total U.S. private-sector trade surplus in services.²

As the industry distributes its films and TV shows in over 130 countries and MPA member companies earn well over half of their distribution revenue overseas, MPA has a strong interest in the health and sustainability of these international markets. MPA greatly appreciates USTR's interest in identifying notorious markets that jeopardize the growth of legitimate commerce and that impair U.S. global competitiveness. The economic and cultural vitality of the creative industries is one of our nation's most valuable assets and it is critical that our trading partners protect and enforce copyright.

While in prior years MPA had included physical marketplaces in our notorious markets recommendations to USTR, this year we again focus our recommendations on the online marketplaces in which copyright infringement occurs. To be clear, physical notorious markets, and in some cases content distributors with physical distribution infrastructure, remain a persistent threat in many territories around the world. Online marketplaces that traffic in stolen content, however, are frequently extraterritorial in reach and have the most significant impact on the global legitimate market for U.S. movies and television programming and are a direct threat to our members' online businesses. Moreover, they are the focus of MPA's global content protection efforts.

Issue Focus – The Impact of Online Piracy on U.S. Workers

Online content theft continues to pose the most significant and evolving threat to our industry and its workers. In 2020, there were an estimated 137.2 billion visits to film and TV piracy sites globally,³ which cost the U.S. economy at least \$29.2 billion in lost revenue each year.⁴

The first and most straightforward negative effect of piracy on creative workers is the reduction in employment opportunities: as piracy eats into the revenue of companies, it diminishes their ability to fund new creative projects and thus the number of jobs created for, or sustained by, these projects. Specifically, piracy has been estimated to reduce employment in our industry

² All the above jobs, economic and trade figures are from The American Motion Picture and Television Industry – Creating Jobs, Trading Around the World. The Motion Picture Association, January 28, 2022,

https://www.motionpictures.org/wp-content/uploads/2022/01/MPA_US_Economic_Contribution_2020_Final.pdf

³ 2020 Movie & TV Piracy Trends Worldwide, Alliance for Creativity and Entertainment,

<https://www.alliance4creativity.com/wp-content/uploads/2021/06/ACE-Piracy-infographic-2020-Final.pdf>

⁴ Impacts of Digital Video Piracy on the U.S. economy. Blackburn, Eisenach, Harrison Jr., June 2019,

<https://www.theglobalipcenter.com/wp-content/uploads/2019/06/Digital-Video-Piracy.pdf>



between 230,000 and 560,000 jobs.⁵ As the Department for Professional Employees (DPE) of the AFL-CIO has argued,

*“digital theft’s impact does not just injure record companies or movie and television production studios. It hurts the millions of Americans who make a living and provide for their families through careers in the creative industries. Intellectual property theft cuts into the resources available to employ people in the entertainment industry and other copyright-protected industries.”*⁶

The second negative effect of piracy on our industry’s workers is on their income – both employment and retirement income – as well as on their benefits. As the DPE stated in 2021, *“creative professionals rely on copyright protections and royalty or residual payments to make a living, provide healthcare for their families, and retire with security.”*⁷ The DPE reports that in 2020, through legitimate sales and streams of creative works, members of the Screen Actors Guild – American Federation of Television and Radio Artists (SAG-AFTRA) received more than \$1.01 billion; members of the International Alliance of Theatrical Stage Employees (IATSE) earned \$496 million for their pension and health plans; the Directors Guild of America (DGA) distributed over \$430 million in residuals to its members; and writers, including members of the Writers Guild of America, East (WGA East), earned \$529 million. These streams of income – including royalties, residuals and retirement contributions – depend on legitimate sales: pirate consumption produces no income for the workers who contributed to the creation of the stolen work.

We note that residuals are of particular importance because they provide our industry’s creative workers with some income stability during the periods when they are not actively employed on the production of a creative project. As the DPE explained, piracy

“reduces the real earnings of professionals already working in creative industries. When an individual receives credit on a production, they may be entitled to compensation if the material is used beyond its original exhibition. For example, residual payments begin for a credited cast or crew member on a television production “once a show starts re-airing or is released to video/DVD, pay television, broadcast TV, basic cable, or new media”.”

That is why more than a decade ago the DPE stated that *“Combating online theft and the sale of illegal CDs and DVDs is nothing short of defending U.S. jobs and benefits.”*⁸

⁵ Impacts of Digital Video Piracy on the U.S. economy. Blackburn, Eisenach, Harrison Jr., June 2019, <https://www.theglobalipcenter.com/wp-content/uploads/2019/06/Digital-Video-Piracy.pdf>

⁶ Intellectual Property Theft: A Threat to Working People and the Economy, 2019 fact sheet, p.4, <https://static1.squarespace.com/static/5d10ef48024ce300010f0fc/t/5d1bb32941a4770001a10b6a/1562096426105/2019+IP+theft+fact+sheet.pdf>

⁷ Intellectual Property Theft: A Threat to Working People and the Economy, p.2, <https://www.dpeaflcio.org/factsheets/intellectual-property-theft-a-threat-to-working-people-and-the-economy>

⁸ <https://aflcio.org/about/leadership/statements/piracy-danger-entertainment-professionals>



Overview

Content thieves provide or administer easy-to-use online piracy websites, apps, and services to distribute infringing content, usually for monetary gain. These sites and services often have the look and feel of legitimate content distributors, luring unsuspecting consumers into piracy. Online enforcement efforts are complicated when intermediaries fail to take adequate steps to ensure their services are not being used to facilitate copyright infringement, a problem compounded by the fact that most website operators operate anonymously and outside the boundaries of the law. All stakeholders in the internet ecosystem – including hosting providers, DNS providers, cloud services (including reverse-proxy and other anonymization services), advertising networks, payment processors, social networks, and search engines – should actively seek to reduce support for notoriously infringing sites such as those identified in these comments, including through voluntary initiatives aimed at combating online content theft. Identifying a service as an infrastructure service does not absolve that service of responsibility.

Many copyright infringing sites utilize two types of technology services to mask their internet protocol (IP) address – i.e., the internet location of their server – and the hosting provider of their website, so as to thwart enforcement efforts. The first type of service is a reverse proxy: it funnels connections to many different websites through shared server(s) that then redirect the connection to its correct destination (which remains masked). The second is a content delivery network (CDN): it is typically used to efficiently deliver content to a global userbase by placing servers all around the world that store copies of that content, providing a high-speed infrastructure to some of the most popular web streaming services. One of the consequences of using a CDN is that it masks the IP address and hosting provider of a website. An example of a CDN and reverse proxy service frequently exploited by notorious markets to avoid detection and enforcement is Cloudflare. Cloudflare's customers include some of the most notorious, long-standing pirate websites in the world, including the massively popular streaming site cuevana3.me and The Pirate Bay, whose current domain, thepiratebay.org, has been identified as infringing rights holders' copyrights nearly six million separate times.⁹ Nonetheless, The Pirate Bay and other notorious pirate sites remain Cloudflare customers despite repeated notices of infringement to Cloudflare.

A growing global threat is piracy from illegal internet protocol television (IPTV) services that provide stolen telecommunication signals/channels and often on-demand infringing film and episodic content to a global audience via dedicated web portals, third-party applications, and piracy devices configured to access the service. MPA has identified over one thousand of these illegal IPTV services operating around the world. In the U.S., these illegal services have been valued at over one billion dollars in piracy subscriptions alone.¹⁰

This year, as it did last year for the first time, MPA's filing includes "Piracy-as-a-Service" (PaaS) as a new category of notorious markets. PaaS is a subset of the larger threat of

⁹ Enter thepiratebay.org in the search bar of the Google Transparency Report's "Content delistings due to copyright" available at <https://transparencyreport.google.com/copyright/overview?hl=en>

¹⁰ Money for Nothing: The Billion-Dollar Pirate Subscription IPTV Business. Digital Citizens Alliance and NAGRA. August 2020, p. 2. <https://www.digitalcitizensalliance.org/clientuploads/directory/Reports/DCA-Money-for-Nothing-Report.pdf>



Cybercrime-as-a-Service, which was identified by Europol as a growing threat enabling a variety of cybercrimes. PaaS encompasses a suite of often off-the-shelf services that make it easy for would-be pirates without any technical knowledge to create, operate, and monetize a fully functioning pirate operation, such as website templates, databases of infringing content, and hosting providers specialized in servicing infringers. These services are evidence of the scale, sophistication, and profitability of modern online commercial copyright infringement. The emergence and development of PaaS services have become a key concern of MPA and a top priority for its antipiracy efforts.

The list of online markets below is not intended to be comprehensive but, rather, reflects an attempt to identify sites and services particularly illustrative of the current nature and scope of online content theft. When possible, we have attempted to provide the specific information requested in the Federal Register Notice (FRN), including popularity rankings and site traffic volume data from SimilarWeb,¹¹ as well as information on revenues where available, among other details. MPA has also attempted to respond to the FRN's request for information regarding any known enforcement activity, including by identifying jurisdictions that have issued blocking orders against the named market. In all instances, blocking orders affect the availability of the piracy service in the specific territories in which the orders are issued; they do not affect the availability of such services extraterritorially.

In most instances, criminal enterprises and individuals work to obfuscate identifying information, such as hosting location, and can hide behind anonymizing services with ease, as discussed above. With this in mind, MPA has aimed to identify each site's predominant location(s) based on several factors – including location of the server, host or domain registrant, or if they are unknown by reference to the market the site targets or draws a disproportionate share of its audience from – recognizing that, frequently, these may be different. This underscores the vital importance of cross-border law enforcement cooperation.

Linking and Streaming Websites

Linking sites aggregate, organize, and index links to content stored on other sites, largely deriving revenue from advertising and referrals. Similar to legitimate services, linking sites that offer unauthorized movies and TV shows typically organize posts by title, genre, season, and episode and often use the official, copyright-protected cover art to advertise the content. 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 streaming or downloading the content. Many streaming link 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 while retaining the user to serve advertisements or malware. Some of these sites also appear to be

¹¹ A SimilarWeb rank represents the approximate number of web sites in the world whose popularity is higher than that of the given site: the more popular a site, the smaller the number. SimilarWeb also provides site traffic data that represents worldwide unique visitors on desktop and mobile for the last available month. 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.



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.

An important development in this space in 2022 was the removal of the Singapore-based streaming site Afdah, following successful action by the Alliance for Creativity and Entertainment (ACE). A separate ACE action led to the shutdown of the illegal German-language streaming sites HDfilme and xCine, which were operated out of Vietnam.

2022 also saw ACE action result in the take-down of Pelisplushd.net (average of 45 million monthly visits according to SimilarWeb) and Serieskao/Serieslatinoamerica (average of 11.7 million monthly visits according to SimilarWeb), both operated out of Peru, and Pelispop/Pelismart (average of 28.8 million monthly visits according to SimilarWeb), operated out of Argentina, all of which were major streaming websites in Spanish.

- **Cda.pl** – Poland. Cda.pl is Poland’s most popular piracy website, eclipsing several legitimate video-on-demand (VOD) services in the country. Cda.pl had 36.46 million worldwide visits from 7 million unique visitors in August 2022, according to SimilarWeb. The site currently has a global SimilarWeb rank of 1,720 and a local rank of 33 in Poland. The operator of the website, CDA Spółka Akcyjna, uses Cloudflare’s reverse proxy service to mask the IP location of the main domains and subdomains, but the video hosting subdomains for Cda.pl are hosted by OVH SAS in France.
- **Cuevana3.me** – Venezuela. Cuevana3.me is currently the most popular streaming site in the Spanish-speaking part of Latin America, and one of the most popular streaming piracy sites in the world, offering more than 7,000 titles including movies and television series. The website has been active since at least 2018. It received 66.71 million visits in August 2022, with local ranks of 53 in Argentina and 68 in Mexico from 10.5 million unique visitors; and its subdomain ww1.cuevana3.me received 66.48 million visits in August 2022, from 8.7 million unique visitors, a total of more than 130 million visits to the ring in August 2022 alone, according to SimilarWeb. The websites’ administrators monetize their infringing service through advertising served by many national and international ad networks. The hosting location is masked by Cuevana3.me’s use of Cloudflare’s reverse proxy service, but it is believed to be currently operated from Venezuela.
- **Cuevana.pro** – Mexico; Colombia. Cuevana.pro, another site taking advantage of the Cuevana piracy brand, currently ranks as the number two pirate streaming website in the Spanish-speaking part of Latin America, offering over 7,000 thousand titles including movies and television series. Cuevana.pro and its subdomain Ver.cuevana.pro received over 44.15 million and 26.3 million visits from 10.1 million and 6.7 million unique visitors in August 2022, respectively. Cuevana.pro has a local rank of 48 in Mexico and 73 in Colombia, according to SimilarWeb. The sites’ operators monetize through advertising served by many national and international ad networks. The hosting location is masked by the use of Cloudflare’s reverse proxy service.
- **Dytt8.net, Dy2018.com, and Ygdy8.com** – China; Taiwan. These three related sites are consistently high-ranking pirate websites in China. Dytt8.net, dy2018.com, and Ygdy8.com



together have more than 23 million monthly visits in August 2022, according to SimilarWeb. Dytt8.net has a local rank in China of 261 according to SimilarWeb and the other two are near the top 500 consistently. With a very user-friendly interface and the provision of direct links to torrent files, these websites remain a particular threat to legitimate services. MPA referred the sites to the National Copyright Administration of China (NCAC) in 2019 as part of NCAC's annual 'Swordnet' campaign and investigation, though the investigation was suspended after law enforcement were unable to identify an operator. MPA again referred these sites to the NCAC in 2022. Some of the servers are believed to be in Taiwan.

- **Egy.best** – Egypt. Egy.best is one of the oldest movie-linking ring of sites 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, though copycat sites and redirects allowed the site to continue. In August 2022, the ring saw 133.04 million total visits across 104 different domains, according to SimilarWeb. The sites use geo-protection filters to stave off enforcement and Cloudflare's reverse proxy service to mask its IP location. It is hosted by IHOR Servers in Russia.
- **Fmovies.to** – Vietnam. 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 global rank is 798, 596 in the U.S., and 13th overall among all sites in the "TV and Movie Streaming" category, according to SimilarWeb. The site received nearly 80 million global visits from 6.8 million unique visitors in August 2022, 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 both locally and globally), Australia, Denmark, Indonesia, Malaysia, and Singapore.
- **Fullhdizlesene** – Turkey. Fullhdizlesene.pw is Turkey's 3rd most popular piracy website, eclipsing several legitimate VOD services in the country. Fullhdizlesene.pw had 21.7 million worldwide visits from 4.8 million unique visitors in August 2022, according to SimilarWeb. The site currently enjoys a local SimilarWeb rank of 77 in Turkey. Fullhdizlesene.pw is hosted by OVH SAS in France.
- **Gimy.app** – Taiwan. The key domains of the highly popular Chinese language pirate website Gimy have now been redirected to Gimy.app (the main domain), Gimy.tv.com, Gimy.cc, and Gimy.one. Gimy's global SimilarWeb ranking is 2,149 but has a local rank of 42 in Taiwan. The Gimy website/domains had an aggregate of 35 million monthly visits in August 2022, a 52% increase in traffic year-on-year, according to SimilarWeb. A criminal referral was made to the Taipei City, Criminal Investigation Bureau (CIB) in Taiwan in December 2020, there was a raid in early 2021, and four indictments were handed down in the Fall of 2022. Despite this enforcement action, which resulted in several key Gimy pirate domains going offline, Gimy has re-emerged with the domains noted above, and the case remains with Taiwan prosecutors in the evidence-gathering phase.



- **Hesgoal.com** – Netherlands. Hesgoal.com is a popular streaming site focused on live sports content. Hesgoal.com had 22.77 million visits from 6.3 million unique visitors with a local rank of 475 in the United Kingdom in August 2022, according to SimilarWeb. Hesgoal.com is hosted by Global Layer B.V. in the Netherlands.
- **KatmovieHD** – India. KatmovieHD is one of the most popular linking websites, providing unauthorized access to popular movies and television series through third party cyberlockers, such as GDTOT, 1fichier, rapidgator, and uptobox; and through communication platforms Telegram and Disqus. KatmovieHD changes domains frequently to avoid site blocking and tracking. This has resulted in 44 domains currently associated with the website. The most recent domain, KatmovieHD.rs, had 15.56 million visits with a total of 31.69 million visits over all currently active domains in August 2022, according to SimilarWeb. KatmovieHD.rs was ranked 4,083 globally and 361 in India in August 2022, according to SimilarWeb. All active domains utilize Cloudflare’s reverse proxy service to mask their location. MPA and other rights holders organizations are targeting the sites and their social channels for takedown in India, Indonesia, and elsewhere.
- **Myflixxr.to** – Vietnam. MyFlixxr is a ring of popular streaming sites that provides streams of film and television content for free with ads. Users can check the status of MyFlixxr domains from the site myflixxr.link. Myflixxr.to had 39.34 million worldwide visits from 6 million unique visitors in August 2022, according to SimilarWeb. Content is believed to be provided by the PaaS content management system 2embed. MPA believes that the operator(s) of MyFlixxr are in Vietnam.
- **NooNoo.tv** – Korea. This piracy link site had 67.44 million monthly piracy visits in August 2022, 99% of which are from Korea leading to a local rank of 24 in Korea, according to SimilarWeb. NooNoo.tv is growing quickly, with daily visits doubling in just the past four months. NooNoo.tv is the 4th most visited streaming site in Korea, compared to both legitimate and illicit sites, and is by far the most visited piracy site. Unlike other Korean link sites, NooNoo.tv was able to grow its user base as the site has been bypassing site blocking orders issued against it. NooNoo.tv has minimal advertisements and supports PC and mobile devices. Its videos are high-quality and are almost identical to those found on legitimate streaming content services, posing a distinct challenge to legitimate services.
- **Rezka.ag** – Russia. Formerly known as hdrezka.me, rezka.ag is a popular Russian language streaming website that offers over 22,000 movies and 5,000 television series, including cartoons and anime. Content can be searched and filtered by genre, year, and categories. According to SimilarWeb, Rezka received 46 million visits from 7.3 million unique visitors in August 2022 despite site blocking efforts in multiple jurisdictions. Rezka also provides a CDN service that is utilized by other piracy sites.
- **Soap2Day** – China. Soap2day.to and its 12 progeny domains are now among some of the most visited sites in the world. The .to domain boasts a global ranking of 761, a U.S. ranking of 264, and a global TV, Movies, and Streaming ranking of 29 according to SimilarWeb. Combined, the Soap2day domains received over 119 million monthly visits worldwide in August 2022, according to SimilarWeb. The site is enormously popular even though many of its domains



have now been blocked in numerous jurisdictions, including Australia, India, Indonesia, Malaysia, the United Kingdom, and Brazil. The site is most popular in the United States and sees rising popularity in Canada. MPA has evidence of the site's connection to China.

- **Streaming Community** – Italy. Streaming Community is a persistent series of streaming piracy sites in Italy that thwarts blocking efforts by repeatedly moving to new domains. Its current active domain, Streamingcommunity.agency, had 26 million global visits in August 2022, according to SimilarWeb, and had a local rank of 66 in Italy.
- **Tamilblasters / Streamblasters / TamilMV** – India. The Tamilblasters network of sites is a follow-on to what was once known as Tamilrockers and has expanded its original peer-to-peer operation into linking and streaming. While rights holders are attempting to disable access to Tamilblasters domains, they remain a major source of piracy in India, actively scraping content from legitimate sites, illegally acquiring releases from screeners, and engaging in illegal camcording. Tamilblasters changes domains frequently in an attempt to avoid the impact of site blocking and tracking, and as such there are currently 41 domains associated with this network. The most recent domain for which data is available, tamilblasters.cloud, had a global rank of 2,995 globally and 224 in India. The site boasted 20.32 million global visits from 2.17 million unique visitors in August 2022 and in total the Tamilblasters network of domains had over 30.63 million visits worldwide in August 2022, according to SimilarWeb. The Tamilblasters domains use Cloudflare's reverse proxy service obfuscating their hosting location. We have nevertheless been able to determine that some of their recent domains were hosted by Scaleway, Knownsrv Ltd, and Spectraip B.v.
- **TheNetNaija** – Nigeria. TheNetNaija is a Nigerian website that provides its users with downloading links for movies and TV shows for free. Registration is not required, but users can choose to create an account for free to comment on posts. The website uses Shabishare as its host. The service attracted 41.40 million global visits in August 2022, according to SimilarWeb, and has a global rank of 1,068, while in Nigeria it is ranked 9th.

Direct Download Cyberlockers and Streaming Video Hosting Services

Direct download cyberlockers and streaming video hosting services are websites that provide centralized hosting for infringing content. They allow users to upload infringing files, and users can then disseminate the corresponding weblinks – which enable either downloads (from cyberlockers), streams, or both – across the internet via linking sites, mobile and other web applications, social media platforms, forums, blogs, and/or email. 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, and that particular link is then removed, the other links may remain active, enabling continued infringement. Cyberlockers and video hosting services often do not present any search function, necessitating discovery elsewhere on separate websites. Many cyberlockers and video hosting services do not respond to takedown notices.



The cyberlockers and video hosting services listed below include examples of both direct download and streaming models. By making vast amounts of infringing premium content available to the public, these sites attract huge amounts of traffic.

- **1fichier.com** – France. 1fichier.com is a direct download cyberlocker with a global rank of 1,772 and a local rank in France of 235, and 39.26 million visits worldwide from 12.29 million unique visitors in August 2022, according to SimilarWeb. Despite a criminal conviction against the administrator of the site in France,¹² users can use 1fichier’s services for free with a limited speed and capacity or register for two paid tiers that provide secure access and unlimited speeds. 1fichier.com offers a referral program where users can receive up to 50 percent commission on each transaction of their prospects, and up to 40 percent on future valid rebills. It had recently been hosted by Online SAS in France but is currently hosted by Dstorage Network in France.
- **Baidu Pan and Baidu Search** – 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 userbase with roughly five billion monthly visits; it is the most popular domain in China, according to SimilarWeb. 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 some tools to take down unauthorized motion picture and television content, and to request demotion of infringing video listings of new release titles on Baidu search results, these tools are applied unevenly. The average time it takes Baidu to remove infringing links from Baidu Pan is long for rights holders given the resources available to Baidu. Additionally, rights holders are sometimes forced to send Baidu multiple follow up notices for proliferating copies of a single piece of content. Baidu should apply rigorous filtering technology to identify infringing content and take more effective action to suspend or terminate repeat infringers.
- **DoodStream.com** – India. DoodStream is a video hosting service offering free storage as well as premium services for priority encoding, high speed, and no ads. DoodStream operates a partner program that offers financial remuneration, either per download or stream depending on the country of origin. DoodStream has embedded links on many streaming websites, including extramovies.io, tamilblasters.cloud, 1tamilmv.cyou, fmovies.win, and attacker.tv. DoodStream had 82.7 million visits in August 2022, according to SimilarWeb. It is hosted by DDoS-Guard LTD in Russia and by OVH SAS in France.
- **Mixdrop.co** – Netherlands. This video hosting service is hosted in the Netherlands by SOLLUTIUM EU SP z.o.o. Mixdrop has an affiliate program, MixPartners, and claims that affiliates may earn up to \$1,000 a week depending on the number of views they generate. SimilarWeb indicates that Mixdrop.co attracted 24.42 million visits from 8.79 million unique visitors in August 2022. Mixdrop was subject to a site blocking order in the United Kingdom in 2022.

¹² <https://www.tellerreport.com/news/2021-04-23-the-administrator-of-a-download-site-sentenced-to-a-one-year-suspension.SyfuvJ2xwu.html>



- **Streamtape.com** – France. 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. Streamtape.com had 26.50 million visits from 9.89 million unique visitors in August 2022, according to SimilarWeb. Streamtape is hosted by OVH SAS in France.
- **Telegram** – UAE. Telegram is an instant messaging service based in Dubai available on Windows, iOS, Android, and Linux that allows users to create channels and groups, upload and share content, and run livestreams. Telegram has an active userbase of around 550 million accounts, with particularly significant reach in Russia, India, and Indonesia. One of its growth drivers is the presence of infringing 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. Telegram’s Terms of Service make no mention of copyrighted content.¹³ 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. In 2020, the European Commission placed Telegram on its Counterfeit and Piracy Watch List.¹⁴ Enforcement actions have been brought successfully in India to require Telegram to disclose information on alleged infringers, and in Israel and Italy requiring Telegram to block access to infringing content. Telegram continues to be a platform of concern.
- **Uptobox.com** – France. Uptobox.com is a direct download cyberlocker that also allows streaming and embedding via its related site, uptostream.com. The site offers a relatively inexpensive premium account for \$28 a year with unlimited storage and no ads. It is widely used among pirate sites in Europe, which generates revenue for the operators of Uptobox/Uptostream either through the use of Uptostream’s video player (which displays ads for which Uptobox/Uptostream get paid) or through download links that serve ads or malware. This popular site has a global rank of 2,002 and a rank of 229 in France, according to SimilarWeb, with 33.48 million visits from 10.3 million unique visitors in August 2022. Uptobox is hosted by OVH SAS and Online SAS, both in France.
- **VK.com** – Russia. VKontakte, or VK.com, is the leading social network and the most visited website in Russia. VK.com, available in 86 languages, is a hotbed of illegal distribution of movie and television files. The service provides its users with the tools to upload video files, an internal search engine that makes it relatively easy to find the content, and it allows users to stream that content by embedding a VK video player. Historically, it became popular by making

¹³ Telegram’s Terms of Service only prohibit three types of behavior – spam, inciting violence, and illegal adult content – and these prohibitions do not apply to private chats and group chats, regardless of size.

¹⁴ 2020 Counterfeit and Piracy Watch List, p.35,

https://trade.ec.europa.eu/doclib/docs/2020/december/tradoc_159183.pdf



it easy to access infringing music and video files. After Mail.Ru Group acquired VKontakte in 2014, it made moves towards legalization that included entering into license agreements with some music rights holders. In 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 (video.mail.ru) operated by the same parent company. VK continues to be a significant infringement hub: every month, MPA and its member companies find thousands of infringing files on the site, especially via dedicated groups which are used to share infringing content and often have thousands of users. While VK was generally responsive to takedown notices prior to the Russian invasion of Ukraine, since then we have seen a noticeable decline in responsiveness and cooperation. MPA welcomed overtures by Mail.ru Group expressing a desire to address piracy issues on VK and other Mail.ru services, including joining the anti-piracy memorandum in November 2018. Unfortunately, VK does not engage in the kind of open dialogue with rights holders that could improve the takedown of infringing content. The site operates on servers owned by VK that are located in Russia. The site has been subject to criminal blocking orders in Italy.

Illegal IPTV Services

Illegal IPTV services typically offer hundreds of channels illegally sourced from providers worldwide, alongside VOD content that includes unauthorized copies of movies and television series. Many of these services offer monthly or yearly subscriptions. 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) the theft, distribution, and sale of channel feeds. IPTV services must rely on a vast and complex infrastructure and support services – which makes the identification of content sources and service operators extremely challenging – including hosting providers, media servers, and panel hosting.¹⁵ Some of these services are used without the knowledge or approval of the service provider. The marketing and sale of IPTV services is often carried out by a growing network of global IPTV service resellers who purchase subscriptions at wholesale prices and re-sell them for a profit, further complicating investigations. A 2020 study found that the estimated profit margins range from 56 percent for retailers to 85 percent for wholesalers.¹⁶ 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.

- **Apollo Group TV** – Netherlands. Apollo Group TV is a piracy group and service that has been active since at least 2016. It began as an add-on app for the Kodi media player, before fully transitioning to a full-service IPTV and VOD provider. The site serves only as a download and subscription point for the IPTV service, rather than being where users access the unauthorized content, and attracted approximately 340,000 visits in August 2022, according to SimilarWeb. The Apollo Group TV service is hosted by Amarutu Technology Ltd in the Netherlands.

¹⁵ Panel hosting is the ability to buy the backend of the IPTV service and customize the design of the frontend.

¹⁶ Money for Nothing: The Billion-Dollar Pirate Subscription IPTV Business. Digital Citizens Alliance and NAGRA. August 2020, p. 2. <https://www.digitalcitizensalliance.org/clientuploads/directory/Reports/DCA-Money-for-Nothing-Report.pdf>



- **BIPTV.best and BestBuyIPTV.store** – Vietnam. BestBuyIPTV is very popular in the United States & 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 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. MPA has evidence of the site’s connection to Vietnam.
- **GenIPTV** – United Kingdom (UK); Switzerland. One of the largest IPTV providers in the world, GenIPTV (operating via genip.tv) offers over 10,000 channels and 52,000 VOD titles. Multiple affiliates exist through which additional services are resold. The service saw 37,214 global visits from 17,506 unique visitors in August 2022, according to SimilarWeb. Hosting of the GenIPTV frontend¹⁷ domain is provided by Bandwidth Technologies in the UK, while their backend domain is hosted by Network Dedicated SAS in Switzerland.
- **IcutCord.net** – Canada. Popular IPTV service/re-seller operating from Canada and offering IPTV packages with over 4,500 live channels, more than 15,000 VOD titles and premium sport channels ranging in price from \$13.19 CAD to \$26.38 CAD. Since March 2022 IcutCord has consistently received over 70,000 visits per month, more than 90% of which come from the U.S. and Canada. Hosting for IcutCord.net’s frontend is provided by DataCamp Limited, with servers in the U.S.
- **Iptv.casa** – Netherlands. Iptv.casa is an IPTV service selling multiple IPTV subscriptions. It specifically targets the Belgian audience and offers access to more than 17,000 IPTV channels from 82 countries. Prices range from €15 to €25 a month. In August 2022, the domain, which only serves as a point to subscribe to the service, attracted 36,061 global visits from 21,346 unique visitors. The iptv.casa service is hosted by Amartu Technology Ltd in the Netherlands.
- **TheKing365tv.site** – France. This is a long-standing and well-known illegal IPTV provider with servers in North Africa. The service offers over 2,200 international channels and an extensive VOD library. TheKing365tv.site attracts less than 40,000 monthly visits, according to SimilarWeb. MPA believes, however, 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. As the website provides no other functions, such as providing content, tech support, or updates, all of these site visits are likely from people interested in purchasing the service. TheKing365tv.site is hosted by OVH SAS in France.
- **King-IPTV.net** –Netherlands. In operation since 2016, this service offers over 16,000 international channels and over 20,000 VOD titles. The site also offers IPTV re-streaming, potentially feeding hundreds of IPTV retransmission/streaming websites or apps around the world. The main domain’s visits have significantly declined in the past year, but according to Similar Web it still attracted over 11,032 global visits in August 2022. As a sign of its popularity,

¹⁷ The “frontend” of a website is what users will see and interact with, whereas the “backend” is the application and database that functionally underpin the website.



the service boasts a 24/7 customer support system. The site is hosted by Mihos Bv in the Netherlands.

- **MagisTV** – China. MagisTV has been in operation since at least 2019, significantly longer than its peers. Generally, IPTV services that become popular in Latin America repeatedly change domain names and/or brands to avoid detection and enforcement actions. MagisTV has become not just a distributor of infringing content, but also a brand: resellers can purchase credits from magistv.net for MagisTV-branded IPTV services, which they then resell in the form of monthly, quarterly, or yearly subscriptions. Magistv.net received 2.8 million visits from 278,900 unique visitors with a rank of 2,330 in Ecuador and 1,956 in Bolivia in August 2022, according to SimilarWeb, while additional domains Magisla.com received 409,000 visits in August and Magistv.la received 475,000 visits in June 2022, according to SimilarWeb (these numbers are low but do not represent end-user traffic, only traffic by visitors who are mostly resellers). It is believed to be operated out of China.
- **SatCon Africa** – Gabon and Central Africa. SatCon Africa is a company based in Gabon which operates a satellite television business with channels that are properly licensed from their rights holders, but which also offers pirated IPTV 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. SatCon is estimated to serve between 40,000 and 50,000 users.
- **Spider Receiver** – Jordan. Spider Receiver is an IPTV service selling multiple IPTV subscriptions and preloaded devices in the Middle East and North Africa region. It offers approximately 10,000 channels and 50,000 VOD titles. There are 90,000 to 150,000 confirmed subscribers, and the service has two physical shops in Jordan. Their prices range between \$10 and \$40 per month.

Piracy Devices and Apps

Piracy devices and apps, also known as illicit streaming devices (ISDs), provide illegal access to movie and television content through a variety of means, including downloading and streaming content as well as unauthorized streaming of live television and sporting events on a user's choice of devices, including televisions. ISDs that are preloaded with infringing apps and TV/VOD subscription services can be found online, as well as in physical marketplaces, particularly in the Asia-Pacific region. Additionally, illegal apps that can place infringing material on otherwise legitimate streaming devices can be found through a myriad of mainstream and specialty app repositories representing a growing threat.

- **EVPAD** – China. EVPAD (ievpad.com) is an Android-based set-top box that incorporates peer-to-peer technology as well as EVPAD-branded apps to enable access to more than 2,000 movies and television 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 of set-top box, “EVBOX,” targeting Taiwanese & European customers. Current information suggests that the boxes are manufactured in China and that the operator is located in China.



- **LokLok** – China. This app/website has grown significantly in popularity in Southeast Asia in recent years, in particular in the Philippines, Malaysia, and Indonesia. It appears the app/site was developed in China by local operators, who evade local detection and enforcement action by implementing a China geoblock. According to SimilarWeb, loklok.com and loklok.tv together attracted more than 3 million monthly visits by more than 800,000 unique visitors in August 2022. Even though it has been taken down six times in the Google Play Store, listings have quickly reemerged and there are still three LokLok app listings available there that have been downloaded more than 2 million times.
- **PikaShow** – India. According to an MPA analysis the PikaShow app has been downloaded over 10 million times across various mobile application stores and Telegram. The application sources most of the content directly from the servers of copyright holders (live TV and VOD) by circumventing their technological measures and then hosts the stolen content on third party cyberlockers and user-generated content platforms. PikaShow controversially sponsored the Afghanistan cricket team during the recent Asia Cup 2022 competition. The operator is believed to be located in India.
- **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. Shabakaty attracted 6.38 million visits from 467,453 unique visitors in August 2022, according to SimilarWeb.
- **SVI Cloud** – China. SVI Cloud is an IPTV service which includes an Android device manufactured in China and an 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. TVTap has rebranded as TVMob, a free Android streaming application that provides access to over 500 live television channels. According to SimilarWeb, tvmob.net (its application download page) attracted 78,035 visits from 45,943 unique visitors in August 2022. The app is monetized through advertising placed within its content offerings. The site relies mostly on Amaratu’s hosting servers in the Netherlands but likely has operators in Pakistan.
- **Unblock Tech (unblocktech.com)** – China. Unblock Tech’s ‘Ubox’ series of ISDs pose enormous piracy and enforcement challenges. The manufacturer of the Unblock Box appears to be Shenzhen Unblock Global Technology Co Ltd., and operators selling the box and providing after-sales service can be found throughout Asia and, indeed, worldwide. 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 television channel content. It appears that Unblock Tech has a userbase that is global but particularly strong among Chinese speakers in the Asia-Pacific region. The official sites (unblocktech.com & ub1818.com) currently receive around 1.9 million visits per month, with Taiwan, the US/Canada and China/Hong Kong making up over 75% of the traffic. An affiliated streaming website for Ubox, www.ub1818.com was referred to the National Copyright Administration of China (NCAC) during their 2021 anti-piracy campaign. The NCAC



transferred the case to the Shenzhen Market Supervision and Regulation Bureau which undertook a very brief investigation prior to notifying the NCAC that as the site was geo-blocked and not accessible in China, no action could be taken.

Peer-to-Peer Networks & BitTorrent Portals

Peer-to-peer (P2P) networks use software that allows users to illicitly make their libraries of content available to any other user of the same network. The most popular P2P software is BitTorrent. BitTorrent websites facilitate file-sharing by organizing and indexing torrent files, which allows trackers to initiate and manage the download process. BitTorrent remains popular, serving millions of torrents to tens of millions of users at any given time.

Following the 2020 dismantling of Sparks Group – a criminal organization operating a P2P network that inflicted tens of millions of dollars in losses to film production studios, according to the U.S. Department of Justice¹⁸ – in a multi-country enforcement action coordinated by the U.S. with support from Eurojust and Europol, one of the operators of Sparks Group was extradited to the United States in August 2021, convicted for conspiracy to commit copyright infringement, and in 2022 was sentenced to 22 months in prison.

The torrent sites discussed in this year’s filing were identified in part because of their high quality, recently released content and because, in some cases, they coordinate the actual upload and download of that content.

- **1337x.to** – Bulgaria. 1337x.to is a popular torrent website with a global SimilarWeb rank of 518. The site provides access to a range of content, including movies, television series, music, and software. 1337x.to had 66.9 million visits from 9.62 million unique visitors in August 2022, according to SimilarWeb. The site is hosted by BlueAngelHost in Bulgaria who promotes itself as a web hosting provider who ignores copyright infringement notices. Variants of the site have been subject to blocking orders in the United Kingdom, Denmark, Portugal, Belgium, Indonesia, Ireland, Malaysia, India, Austria, Australia, and Italy.
- **Rarbg.to** – Bosnia and Herzegovina. Rarbg.to is a very popular torrent website with 44.74 million visits from 5 million unique visitors in August 2022, according to SimilarWeb. The site provides access to a range of content including movies and television series, with over 1.5 million total torrents available. Rarbg.to is hosted in Bosnia and Herzegovina by S A and A stroi proekt EOOD. The site and its variants have previously been subject to blocking orders in Portugal, Italy, Denmark, Finland, Indonesia, Belgium, Ireland, Malaysia, Australia, and the United Kingdom.
- **Rutracker.org** – Russia. 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 12.3 million registered users and 1.9 million active torrents. It is one of the world’s most visited pirate websites, with a global SimilarWeb ranking of 946 and a local

¹⁸ U.S. Department of Justice, August 26, 2020, press release. <https://www.justice.gov/usao-sdny/pr/acting-us-attorney-announces-federal-charges-and-international-operation-dismantle-0>



rank of 132 in Russia. According to SimilarWeb, Rutracker.org had 43.39 million visits from 7.43 million unique visitors in August 2022. The site is hosted in Russia by Dreamtorrent Corp., a Seychelles company that we believe is also the owner of the site. The site has been subject to blocking orders in Italy, Indonesia, Greece, Australia, Denmark, Singapore, Russia, and Portugal.

- **ThePirateBay.org** – Global. Available in 35 languages, ThePirateBay.org (TPB) is one of the largest BitTorrent websites, with a global SimilarWeb rank of 1,983, and a rank of 1,836 in the U.S. ThePirateBay.org received 26.1 million visits from 7.96 million unique visitors in August 2022, according to SimilarWeb. In January 2008, Swedish prosecutors filed criminal charges against TPB operators for facilitating breach of copyright law. The operators were found guilty in March 2009 and sentenced to prison and to a multi-million dollar fine. This judgment was affirmed by the Svea Court of Appeal and the European Court of Human Rights. Site blocking orders have been handed down in Argentina, Australia, Austria, Belgium, Denmark, Finland, France, Iceland, Ireland, Indonesia, Italy, Malaysia, the Netherlands, Norway, Portugal, Spain, and the United Kingdom. The website has had multiple alternative domains hosted in various countries around the world over the years. The hosting location of the website is concealed by Cloudflare’s reverse proxy service and by its hosting provider Shinjiru Technology of Malaysia.

- **Yts.mx** – Bulgaria; Belize. The world’s most popular P2P torrent site dedicated to movies, YTS boasted 90.85 million total monthly visits from 12.37 million unique visitors in August 2022, according to SimilarWeb, which ranks it 436 globally. Over 32,000 movies are available in HD and 4K quality. While the site is accessible from all over the world, it is most popular in the U.S., which originates 11.2 percent of its traffic. The site has worldwide appeal due to its vast library of quality torrents, but also the accompanying subtitle site yifysubtitles.org, which provides subtitles in an array of languages synchronized to each individual torrent. The site has been blocked in France, the United Kingdom, Italy, Ireland, Norway, Australia, Portugal, Denmark, India, and Spain. The site frequently changes web domains to avoid site blocking. It is currently hosted by Cloudwall Ltd and 4 Vendeta EOOD (aka Tamatiya Eood) in Bulgaria, and Private Internet Hosting in Belize.

Hosting Providers

Hosting providers offer the essential infrastructure to operate a website. In particular, websites engaged in massive copyright infringement require hosting providers that enable high-quality video playback. The hosting provider has the ability to take offline websites engaged in massive copyright infringement. Some hosting providers also provide reverse proxy and CDN functionality to their customers, and thus allow copyright infringers to thwart enforcement efforts. Given the central role of hosting providers in the online ecosystem, it is disconcerting that many refuse to take action upon notification that their services are being used to infringe intellectual property in blatant violation of both their own terms of service and the law. Some hosting providers are referred to as “bulletproof” because their terms of service even allow their customers to upload and distribute infringing content without consequence.



- **Amaratu/KoDDos** – Netherlands. This service is considered a bulletproof hosting provider for pirate sites. Some of the biggest piracy sites and services take advantage of Amaratu/KoDDos services, such as MoonWalk, a CDN and content management system that provided content sources for numerous pirate sites and went offline in 2019. Amaratu/KoDDos does not respond to takedown requests.
- **DDoS-Guard.net** – UK; Russia. This service is also considered a bulletproof hosting provider for pirate sites. Some of the biggest infringing sites are taking advantage of DDoS-Guard’s services, including bs.to and DoodStream.com (see above). DDoS-Guard does not respond to takedown requests.
- **Mnogobyte** – Russia. Mnogobyte provides infrastructure to various infringing CDNs and websites. Several pirate sites and services have previously used, or currently use, Mnogobyte including VideoCDN, Kodik, and Videoframe.
- **Squitter.eu (ABC Consultancy)** – Netherlands. Squitter.eu is a bulletproof hosting provider for pirate sites. Many piracy sites have used or are still using Squitter to host and serve media content, including prmovies.biz, 123movieswatch.net, azmoviess.com, and jogiiasd.xyz. The service does not respond to takedown requests.

Registries

Registries are organizations that oversee the registration, and maintain the authoritative database, of domain names within a specific top-level domain (TLD).¹⁹ Registries operate either generic TLDs (gTLDs, such as .com or .org) or country code TLDs (ccTLDs, such as .fr for France or .us for the United States). Registries usually delegate the function of registering domain names to registrars, which operate under their supervision. A registry, directly or via its contractual relationship with its registrars, has the ability to withdraw or disable domain names used by websites engaged in massive copyright infringement. The following registries continue to maintain domain registrations for notorious piracy sites despite notification and outreach.

- **.CH Registry** – .CH is the ccTLD for Switzerland, and its registry is SWITCH Information Technology Services. Examples of infringing websites operating with .CH domains include flixtor.ch, filma24.ch, elitetorrent.ch, and levidia.ch.
- **.CC Registry** – .CC is the ccTLD for the Cocos (Keeling) Islands, an Australian territory. Examples of infringing websites operating with .CC domains include cuevana4.cc, gratisfilmer.cc, gnula.cc, and streamtape.cc.
- **.IO Registry** – .IO is the ccTLD for the British Indian Ocean Territory. This registry is operated commercially by Afilias, a subsidiary of Ethos Capital. Examples of infringing websites operating with .IO domains include pelisplus2.io, 123moviesgo.io, rezka.io, and extreme-down.io.

¹⁹ In example.com, “example” is the domain name and “.com” is the TLD.



- **.ME Registry** – .ME is the ccTLD for Montenegro. The .ME registry is operated by doMEn. Examples of infringing websites operating with .ME domains include kinostar.me, cuevana3.me, repelishd.me, and cpasfini.me.
- **.RU Registry** – .RU is the ccTLD for the Russian Federation, and its registry is the Coordination Center for TLD RU. Examples of infringing websites operating with .RU domains include rlsbb.ru, films-torrent.ru, bflix.ru, filmpalast.ru, and lastmovie.ru.
- **.TO Registry** – .TO is the ccTLD of Tonga, and its registry is the Tonga Network Information Center (TONIC). Examples of infringing websites operating with .TO domains include rarbg.to, fmovies.to, kinox.to, serienstream.to, 1337x.to, torrentgalaxy.to, solarmovie.to, ibit.to, and bs.to.

Payment Processors

Payment processors include credit card companies and networks, acquirer banks within these networks, and other payment processing and money transfer services. Significant online sales of any kind are almost impossible without the transmission of payments through these payment processing services. Many piracy services depend heavily on electronic payment services and the evidence of their abuse of payment processors is found in the hundreds of millions of dollars paid for infringing content and counterfeit goods each year.

- **VoguePay** – Nigeria. VoguePay is popular among illegal IPTV service providers, including King365tv.com, mymagic-tv.net, acasatv.net, beiptv.com, volkaiptv.fr, iptvstramers4less.com, and ipxbuy.com. The company offers a secure payment gateway for risky online businesses in exchange for substantial transaction fees. This gateway accepts credit cards.

Ad Networks and Online Advertisers

Ad networks are the companies that place ads on behalf of advertisers (i.e. the entities and brands that are seeking publicity) on websites that display advertising, thus supporting infringing sites by providing them with considerable advertising revenue – an estimated \$1.34 billion, according to the Digital Citizens Alliance.²⁰ Although many ad networks have established best practices and guidelines to address piracy, the detection and policing of illicit sites remains challenging. An additional concern is that some of the advertisements served to users of pirate sites contain malicious software, such as ransomware, that can infect their device. This “malvertising” is estimated to generate over \$120 million a year for operators of pirate sites.²¹

²⁰ Breaking (B)ads: How Advertiser-Supported Piracy Helps Fuel A Booming Multi-Billion Dollar Illegal Market, Auguste 2021, p. 1. <https://www.digitalcitizensalliance.org/clientuploads/directory/Reports/Breaking-Bads-Report.pdf>

²¹ Unholy Triangle – From Piracy to Ads to Ransomware: How Illicit Actors Use Digital Ads on Piracy Sites to Profit by Harming Internet Users”, Digital Citizens Alliance, White Bullet and Unit 221B, September 2022, <https://www.digitalcitizensalliance.org/clientuploads/directory/Reports/Unholy-Triangle-Report.pdf>



- **1XBET** – Russia; Cyprus. 1XBET is not an ad network but an advertiser. In 2020 it became the third most active online advertiser in Russia. It is an online gambling site that originated in Russia but now operates worldwide. 1XBET knowingly and routinely pays to place display ads on pirate sites as well as ads with promotion codes watermarked into infringing videos, including in some of the earliest releases of infringing theatrical camcord recordings. After Russian law enforcement agencies initiated an investigation in 2020, its advertising activity declined. However, 1XBET remains active, and its ads continue to appear on infringing websites today.
- **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, the Isle of Man, and the United Arab Emirates. The company is a significant ad provider to streaming cyberlockers. According to the Digital Citizens Alliance, Propeller Ads is among the biggest facilitators of malvertising on piracy sites, accounting for a quarter (estimated at \$31 million) of their malvertising.²² Propeller Ads has been offering its services to dozens of illegal and infringing sites such as 2embed.to, voe.sx, streamtape.com, and lookmovie.io, helping those sites generate significant revenues through advertising.

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) content management systems (CMS), which are databases providing access to tens of thousands of infringing movies and TV series, in exchange for the payment of a fee or a cut of the advertising revenue; (ii) dashboards that allow an illegal IPTV operator to oversee the infrastructure of their service (including monetization, content-hosting servers, and user interactions); (iii) hosting providers that provide a safe haven for pirates because they do not respond to DMCA notices of copyright infringement (for examples, see the Hosting Providers section above); (iv) 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); (v) website templates that facilitate setup of streaming websites; (vi) domain name obfuscation services that anonymize the registration and procurement of domain names in an effort to thwart registries' terms of service; and (vii) 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.

PaaS is a subset of the larger threat of Cybercrime-as-a-Service identified by Europol, which has noted that illegal online activities are “increasingly enabled” by third-party tools that make these

²² “Unholy Triangle – From Piracy to Ads to Ransomware: How Illicit Actors Use Digital Ads on Piracy Sites to Profit by Harming Internet Users”, Digital Citizens Alliance, White Bullet and Unit 221B, September 2022, <https://www.digitalcitizensalliance.org/clientuploads/directory/Reports/Unholy-Triangle-Report.pdf>



crimes feasible for even technically inexperienced criminals.²³ PaaS is evidence of the scale, sophistication, and profitability of modern online commercial copyright infringement.

- **2embed.to** – Vietnam. 2embed.to is a pirate content management system (CMS) library used by at least 508 sites that collectively receive over 676 million visits per month, according to SimilarWeb. The site’s CMS crawls various websites and search engines to find infringing movie and TV show streaming links which are then stored in their database and served through their API service.²⁴ It offers a large library of movies via streaming, direct link, or embedding. Pirate site operators can either use 2embed’s service for free, in which case 2embed remunerates itself by inserting ads, or use its paid service that allows them to insert their own ads. MPA has evidence of the site’s connection to Vietnam.
- **Abyss.to** – Vietnam. Abyss.to, formerly HydraX.net, offers a “Google pass through,” i.e. a service that allows users to upload infringing videos via Google Drive or to drag and drop files onto the site’s page. The service then obfuscates the location of the hosted content, to prevent enforcement and shield the identity of the website’s operator. Abyss.to also provides the ability to embed the videos with the Abyss media player on separate sites for free, but viewers will be served ads by Abyss.to. Many piracy sites including 123movies.fun, gostream.site, solarmoviez.ru, and yesmovies.to have previously used, or currently use, Abyss.to or HydraX.net to host and serve video content. The hosting location of Abyss.to is masked by Cloudflare’s reverse proxy service, but there have been media reports linking the service to Vietnam.
- **Collaps.org** – Russia. This popular pirate movie CMS has gained prominence since MoonWalk, another prominent CMS, went offline in 2019 following a concerted multi-national enforcement action. The popular streaming video hosting service HDGO 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.
- **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 3 million visitors in August 2022, 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. MPA has evidence of the site’s connection to Vietnam.
- **GDrivePlayer** – Russia. GDriveplayer.to offers various simple-to-use APIs for operators of pirate streaming services to source lists of links to infringing video content hosted on Google Drive, Google Photo, Youtube, Facebook, and Fembed. The content is played through GDrivePlayer’s own media player, which can be embedded in Android apps. GDrivePlayer is

²³ Internet Organised Crime Threat Assessment 2020, <https://www.europol.europa.eu/activities-services/main-reports/internet-organised-crime-threat-assessment-iocta-2020>

²⁴ An Application Programming Interface (API) enables two different software programs or web services to interoperate, i.e., work together.



compatible with the popular web publishing system WordPress. The service is monetized by displaying one ad before each play. GDrivePlayer has been observed in use in popular websites such as seriestop.unblockit.uno, 123moviesonline.online, and 123movieshub.tc.

- **WHMCS Smarters** – India. WHMCS Smarters is an IPTV turnkey solution. Its IPTV software solution offers website design and development, customized apps on several platforms (including iOS, Android, and Windows), and a billing platform. They 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.
- **Njalla** – Saint 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.
- **Pelisplus.icu** – Mexico. Pelisplus.icu is a popular CMS library service that also streams its own library as a standalone piracy site. Analysis suggests that the operator is based in Mexico and likely related to other sites such as pelisplus.move. The site has been active since at least 2019. Pelisplus.icu's has a local rank of 605 in Mexico and 1,178 in Colombia and received 5.9 million visits from 2 million unique visitors in August 2022, according to SimilarWeb (note, however, that SimilarWeb numbers only reflect end-user traffic that comes directly to its site and not traffic that comes to it by passing through its CMS customers that operate their own streaming services). The site's administrators monetize their infringing service through advertising served by national and international ad networks and by reselling their library to other site operators focusing on Spanish-language clients. The hosting location of Pelisplus.icu is masked by Cloudflare's reverse proxy service.
- **XFileSharing/XvideoSharing** – Russia. SibSoft.net has developed two software programs that enable the automation of file hosting and sharing (XFileSharing) and the creation of a cyberlocker (XVideoSharing is one of the most widely used cyberlocker programs, with the service claiming in its marketing materials to work with over 1,000 customers). Both products include a wide range of modern technical features, either out of the box or as premium features. Major services such as Upbam.org, GoUnlimited, Openload, and FruityHost are among the sites that are, or have been, their clients.

Closing

In the U.S. and around the world, the motion picture and television industry is a community of creators and innovators who work tirelessly at the art and craft of storytelling. The criminals who profit from the most notorious markets threaten the very heart of our industry and in so doing, threaten the livelihoods of the people who give it life. These markets are an immediate threat to legitimate commerce, impairing legitimate markets' viability and curbing U.S. competitiveness. USTR's efforts to shine a light on the most egregious instances of copyright theft in foreign markets is an essential step in fostering creativity and innovation, not only in the film and



television industry but throughout the creative economy.

MPA appreciates the opportunity to comment and is ready to provide further information or answer questions as requested.

Sincerely,

A handwritten signature in black ink, appearing to read "C. H. Rivkin".

Charles H. Rivkin
Chairman & CEO