



Steven Hawley
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Piracy Monitor*

M&E Piracy: Use-cases and Business Models

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Contact

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29th June, 2021 | 13:00 - 18:00 BST | Virtual

Content Protection Summit



Piracy Use-cases and Business Models

- **What is video piracy?**
- **Where piracy happens**
- **How piracy happens: piracy models**
- **What do we do about it?**



Piracy Monitor

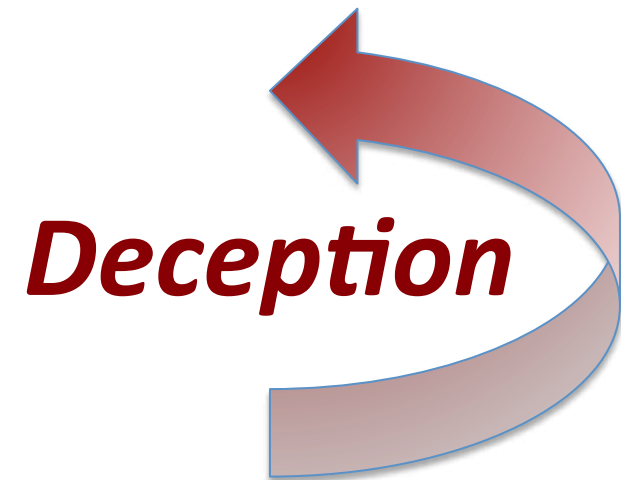
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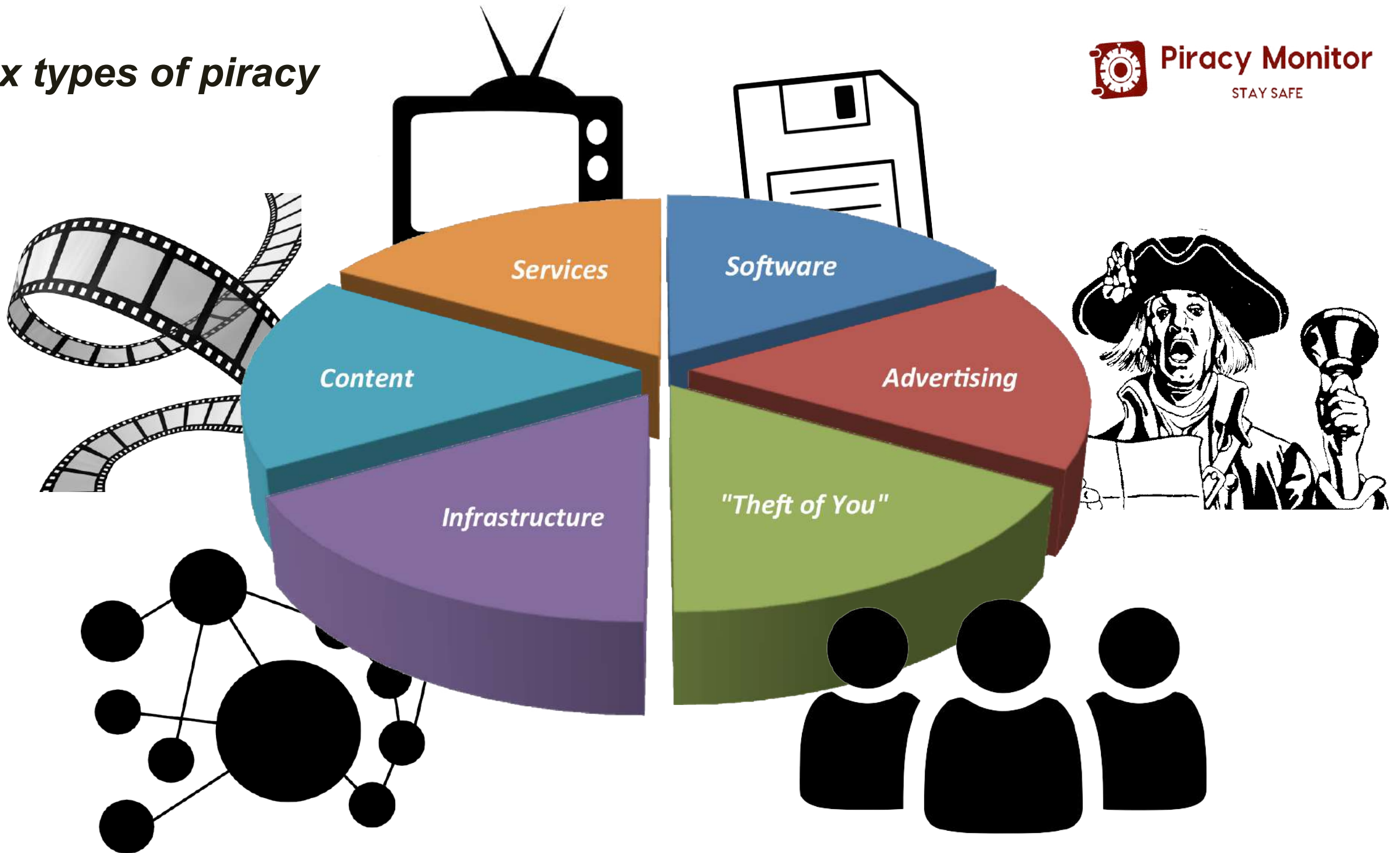
<https://piracymonitor.org/>

Demand = Piracy

Demand = Piracy > < Fraud



Six types of piracy





Piracy Use-cases and Business Models

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Piracy Monitor

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Video providers can only protect within managed distribution

NO Protection

Before Distribution

Vulnerable to theft:

- Live sports, events
- Original Programming
- Digital cinema
- Production copies

Protected

Legal distribution

Pay TV/DVB (CA/CAS), Streaming (DRM)

Production & Packaging

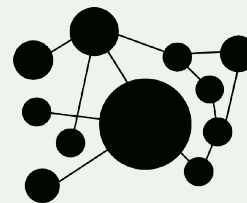
Distribution

Authentication & Playback

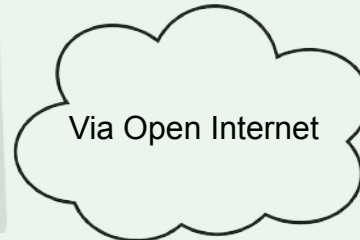
Pay TV Provider

Original Content Provider

via Managed Network



Via Open Internet



NO Protection

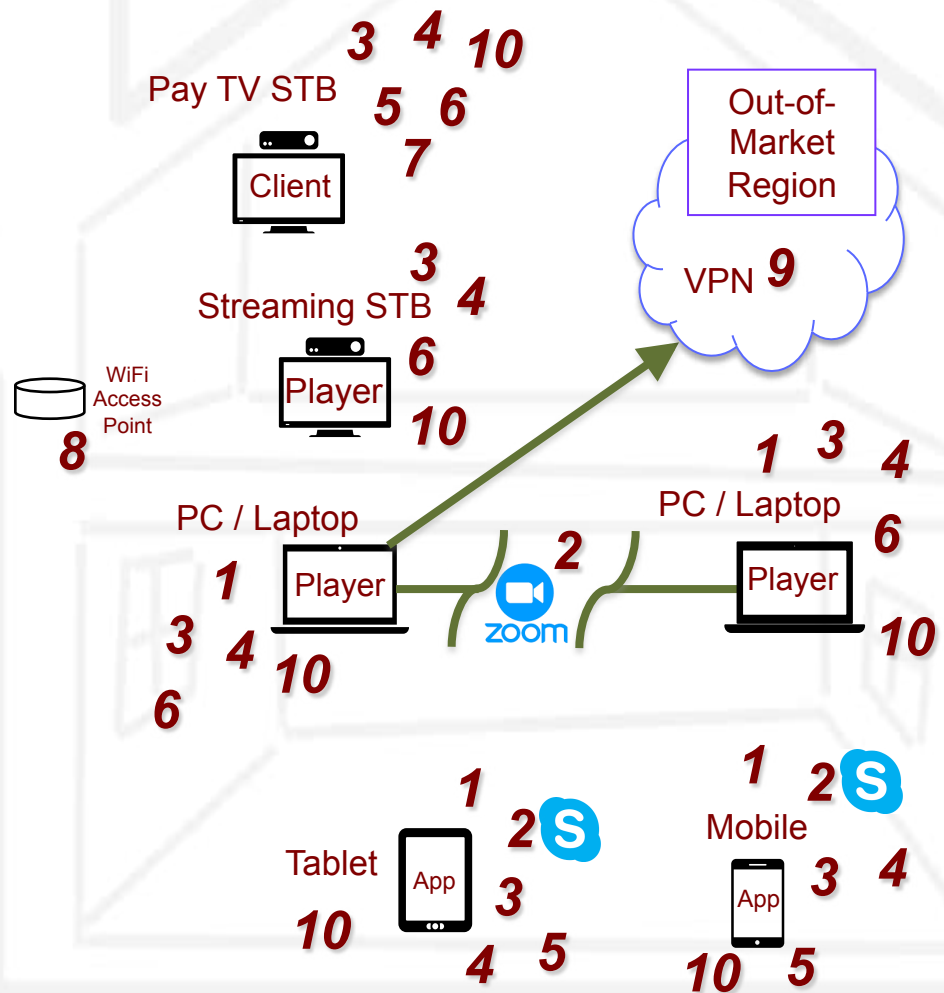
Beyond the consumer

Vulnerable to theft:

- Live streamed events
- Series programming
- Cinematic releases
- Personal information
- Software integrity
- Device integrity

Where can it stolen? (excluding pre-release & physical media)

- 1) Screen recording during live broadcast
- 2) Capture from a screen-share session
- 3) Tampering with video player software
- 4) Breach to device's video pipeline
- 5) O/S breaches (e.g. Open Source - Linux, Android)
- 6) Interception at a connection (HDMI, USB, etc)
- 7) Breach a watermark, collusion attack
- 8) Interception over Network ("Man in the Middle")
- 9) Access from out-of-market locations (VPN)
- 10) Network DVR ployout (captured, restreamed)



Client-side close-up: Layered exposure

- **Video session**
- **Video player**
- **Apps / Browser / Plug-ins**
- **Video Pipeline**
- **Memory, storage**
- **Chip-set**
- **Device OS**
- **Device Connections (HDMI, etc.)**
- **Local Network Connections (IP)**



Content Protection Summit



Piracy Use-cases and Business Models

- **What is video piracy?**
- **Where piracy happens**
- **How piracy happens: piracy models**
- **What do we do about it?**



Piracy Monitor

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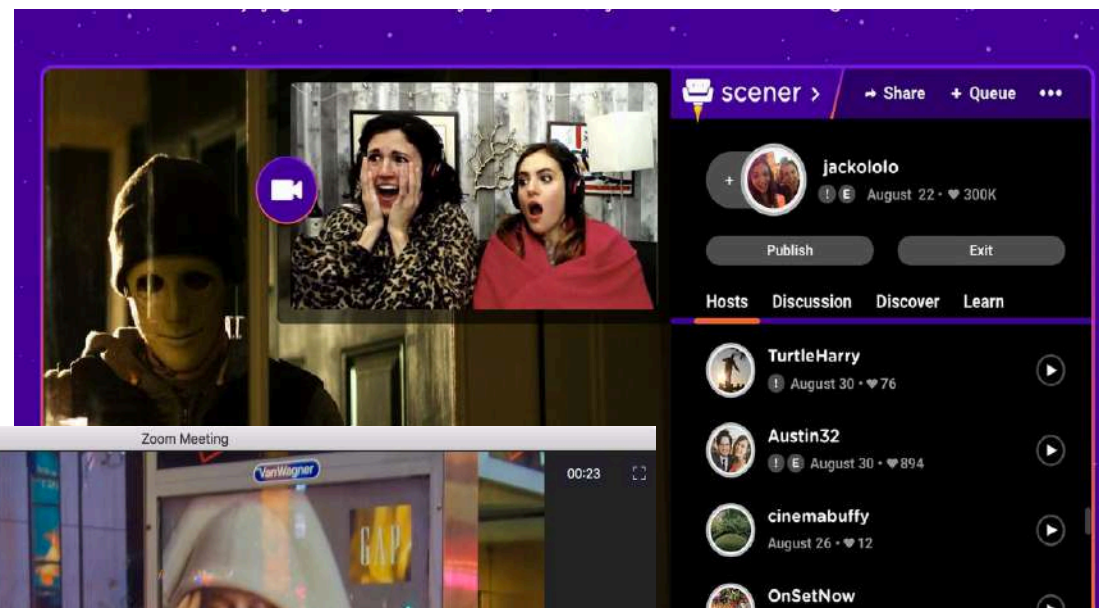
“C2C” Use-case 1: Social watch parties

C2C

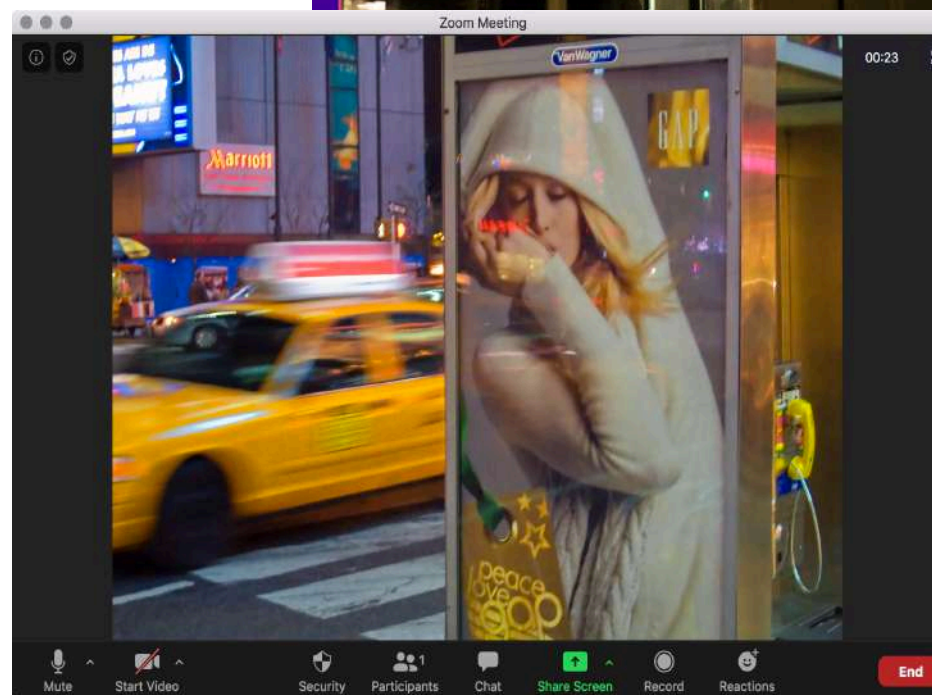
- Closed: Hulu Watch Party, Netflix Teleparty, Sling TV
- Open watch parties: Twitch, Zoom
- Private social groups, circles of friends

But is it piracy?

- Not if everyone adheres to terms of use
- Not if the content is yours

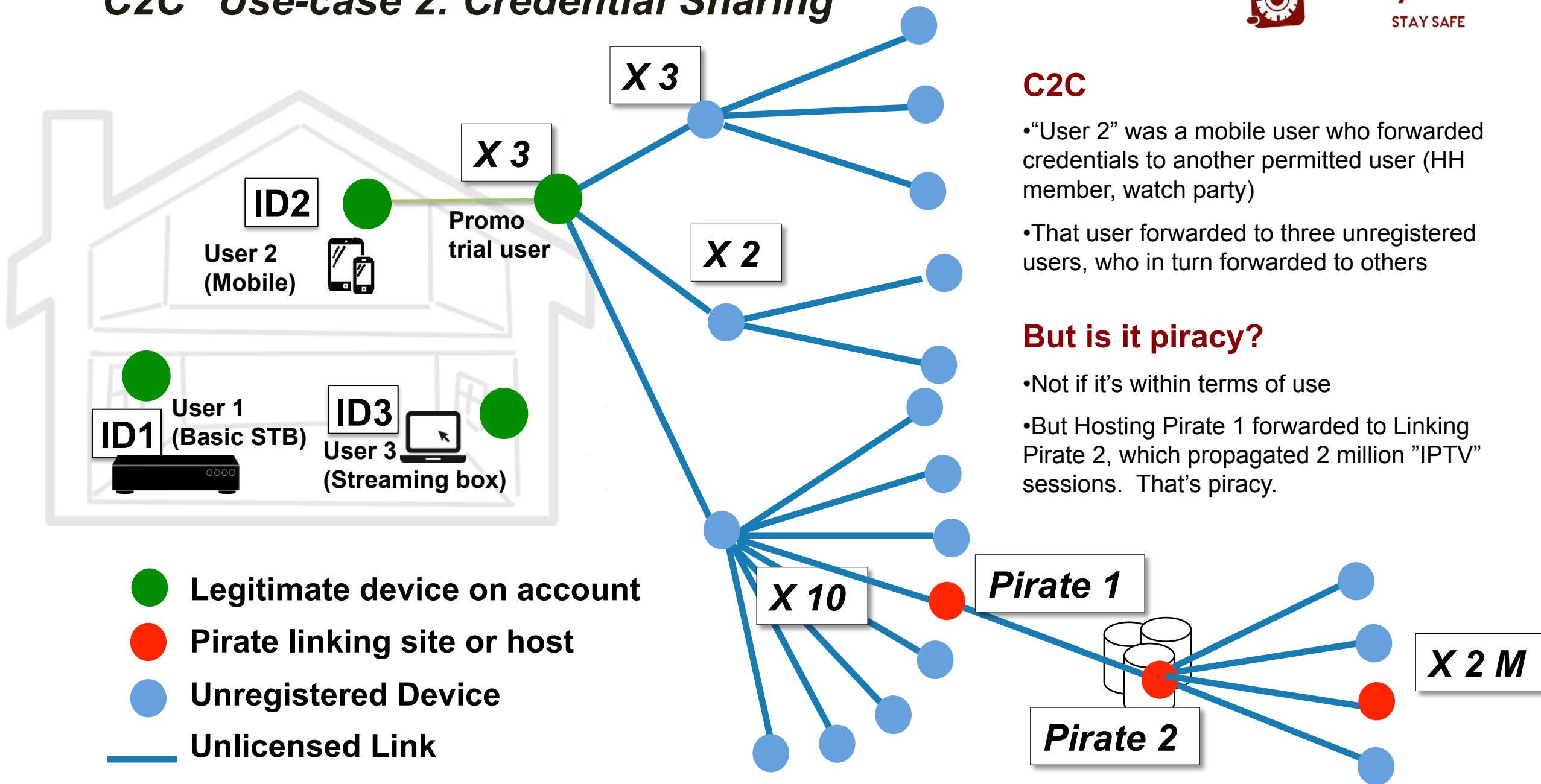


Source:Scener



Source: Piracy Monitor

“C2C” Use-case 2: Credential Sharing



C2C

- “User 2” was a mobile user who forwarded credentials to another permitted user (HH member, watch party)
- That user forwarded to three unregistered users, who in turn forwarded to others

But is it piracy?

- Not if it’s within terms of use
- But Hosting Pirate 1 forwarded to Linking Pirate 2, which propagated 2 million “IPTV” sessions. That’s piracy.

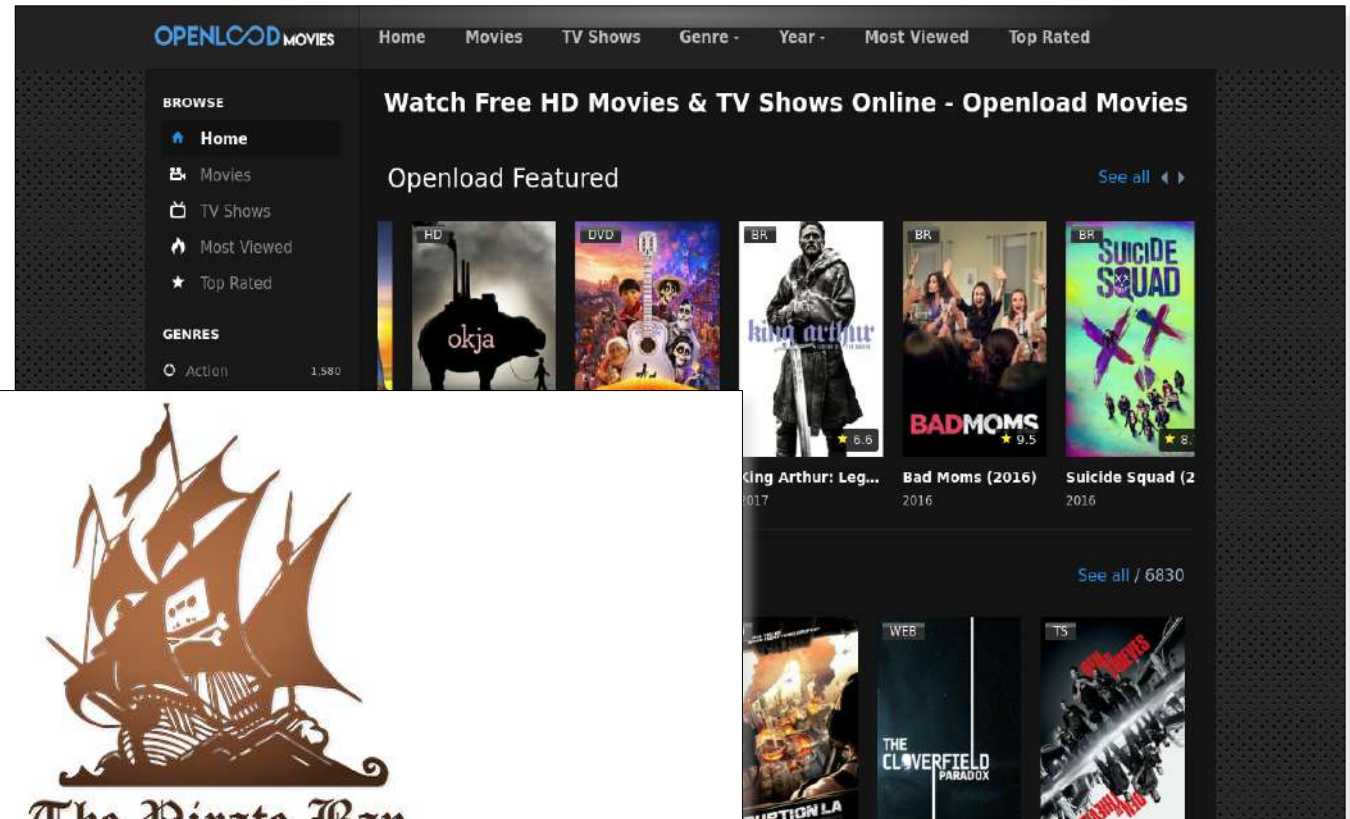
Piracy Model 1: Hosting sites and cyber-lockers

C2C: Sharing sites where consumers upload videos for others to download

B2C: Hosting sites that feed consumers via torrents (Pirate Bay).

Private social groups as video clubs

But is it piracy: Yes, if the content is not licensed for this form of distribution

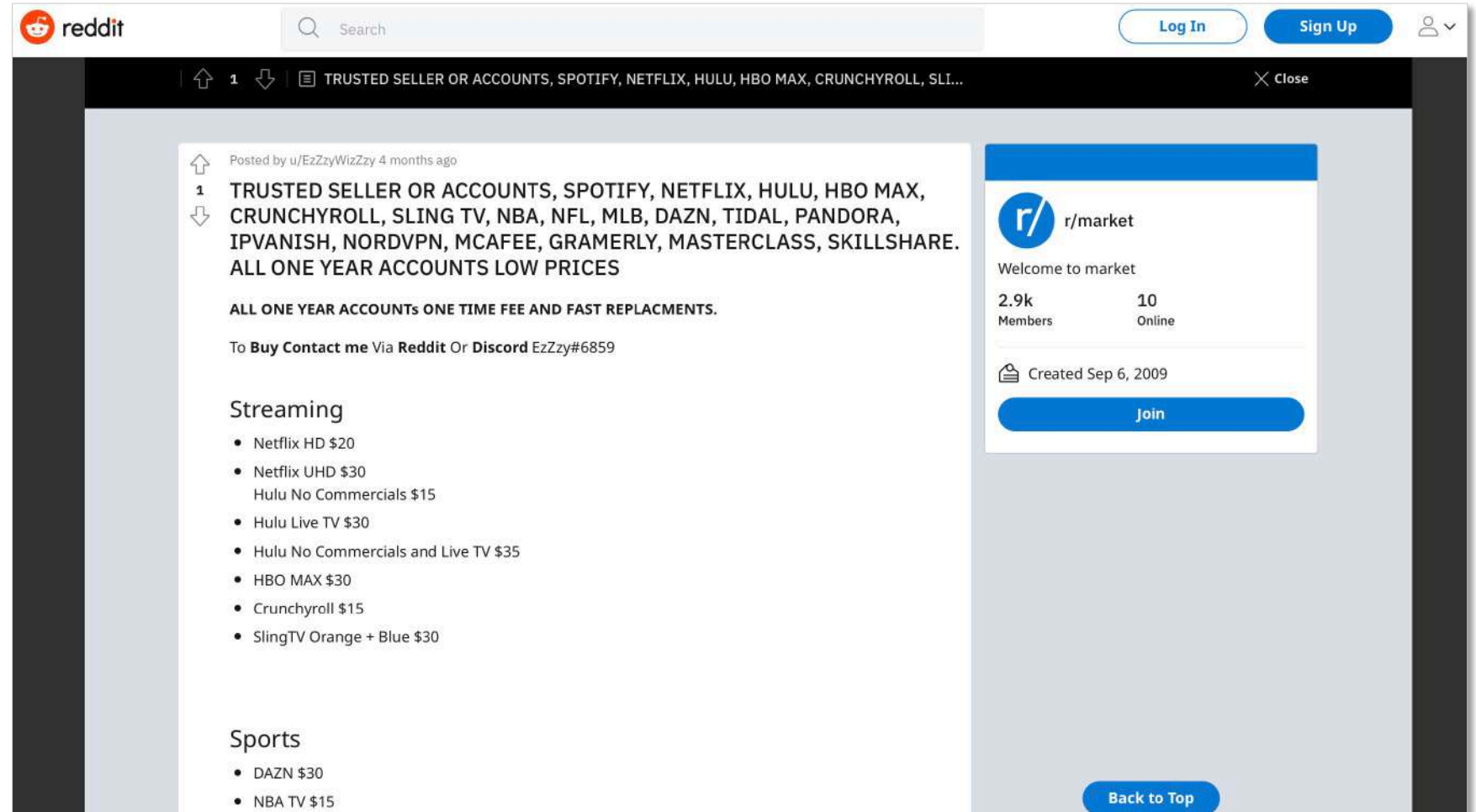


Piracy Model 2: SVOD credential resellers

B2C: Sharing sites where consumers buy account access (harvested credentials)

B2B: Entities that buy and mine databases for working credentials, then sell them in bundles to B2C resellers.

Is it piracy: Yes, if the seller doesn't have distribution rights



reddit Search Log In Sign Up

↑ 1 ↓ TRUSTED SELLER OR ACCOUNTS, SPOTIFY, NETFLIX, HULU, HBO MAX, CRUNCHYROLL, SLI... Close

Posted by u/EzZyWizZzy 4 months ago

1 ↑
↓

TRUSTED SELLER OR ACCOUNTS, SPOTIFY, NETFLIX, HULU, HBO MAX, CRUNCHYROLL, SLING TV, NBA, NFL, MLB, DAZN, TIDAL, PANDORA, IPVANISH, NORDVPN, MCAFEE, GRAMERLY, MASTERCLASS, SKILLSHARE. ALL ONE YEAR ACCOUNTS LOW PRICES

ALL ONE YEAR ACCOUNTS ONE TIME FEE AND FAST REPLACEMENTS.

To Buy Contact me Via Reddit Or Discord EzZy#6859

Streaming

- Netflix HD \$20
- Netflix UHD \$30
- Hulu No Commercials \$15
- Hulu Live TV \$30
- Hulu No Commercials and Live TV \$35
- HBO MAX \$30
- Crunchyroll \$15
- SlingTV Orange + Blue \$30

Sports

- DAZN \$30
- NBA TV \$15

r/market
Welcome to market
2.9k Members 10 Online
Created Sep 6, 2009
Join

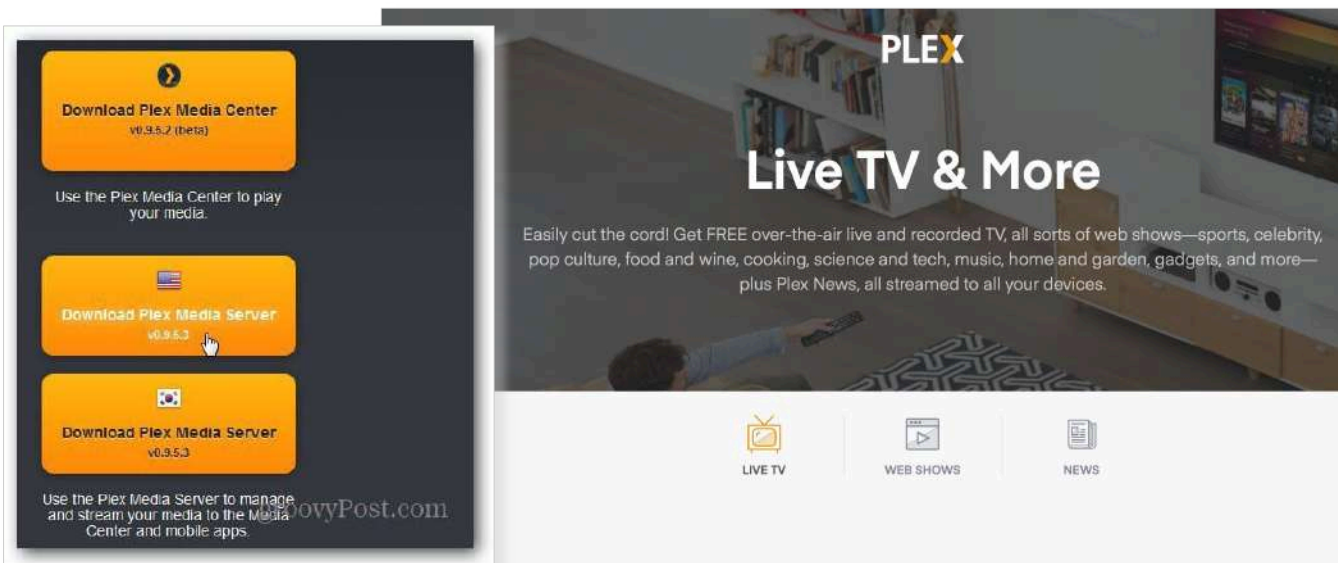
Back to Top

Piracy model 3.1: Software and Devices

Legitimate Software / Pirate Apps

B2C: Browser extensions, Media centers (Plex/Kodi), Mobile/streaming apps

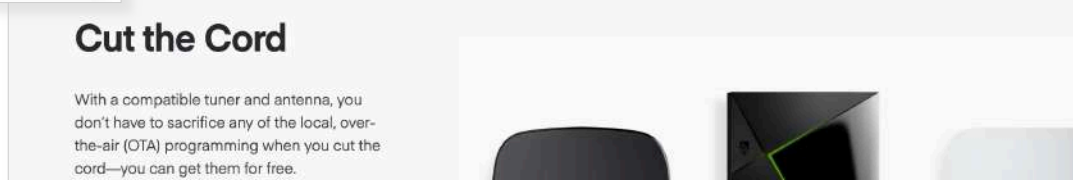
Yes it's piracy: If it distributes unlicensed content



The image shows a screenshot of the Plex website. On the left, there are three orange buttons: 'Download Plex Media Center v1.9.5.2 (beta)', 'Download Plex Media Server v0.9.5.3', and 'Download Plex Media Server v0.9.5.3'. The main content area features the Plex logo and the text 'Live TV & More' with a sub-headline 'Easily cut the cord! Get FREE over-the-air live and recorded TV, all sorts of web shows—sports, celebrity, pop culture, food and wine, cooking, science and tech, music, home and garden, gadgets, and more—plus Plex News, all streamed to all your devices.' Below this are icons for 'LIVE TV', 'WEB SHOWS', and 'NEWS'. A watermark '@copyPost.com' is visible at the bottom left.



The image shows a screenshot of the Kodi website. The main heading is 'Kodi wants to entertain you'. Below it is a paragraph: 'Kodi spawned from the love of media. It is an entertainment hub that brings all your digital media together into a beautiful and user friendly package. It is 100% free and open source, very customisable and runs on a wide variety of devices. It is supported by a dedicated team of volunteers and a huge community.' Below the text is a collage of images showing the Kodi interface on various devices: a laptop, a desktop monitor, a tablet, and a smartphone. The interface displays categories like 'Movies', 'TV shows', 'Music', and 'Music videos', along with a 'Recently added movies' section featuring titles like 'Big Buck Bunny', 'Elephant's Dream', and 'Sintel'.



The image shows a screenshot of the 'Cut the Cord' website. The main heading is 'Cut the Cord'. Below it is a paragraph: 'With a compatible tuner and antenna, you don't have to sacrifice any of the local, over-the-air (OTA) programming when you cut the cord—you can get them for free.' Below the text is a partial view of a television set.

Piracy model 3.2: Software and Devices

Legitimate Devices / Pirate Apps

B2C: Retail streaming devices, jailbroken and opened to pirate ecosystems


Yes it's piracy: If it distributes unlicensed content

Install secret apps on your Firestick or Android Box [GET FREE APP](#)

The Hydrogen IPTV service provides over 5,000 live channels with many in HD quality.

As of this writing, their standard package costs \$12.50/month and includes channel categories like news, entertainment, sports, PPV, international, and much more.

Their basic package comes with one connection, but users can get more during registration.



STREAM ANONYMOUSLY

- ✓ Unlimited Devices
- ✓ Money-back Guarantee
- ✓ Firestick Optimized App

SAVE 74%

[Get The Deal](#)

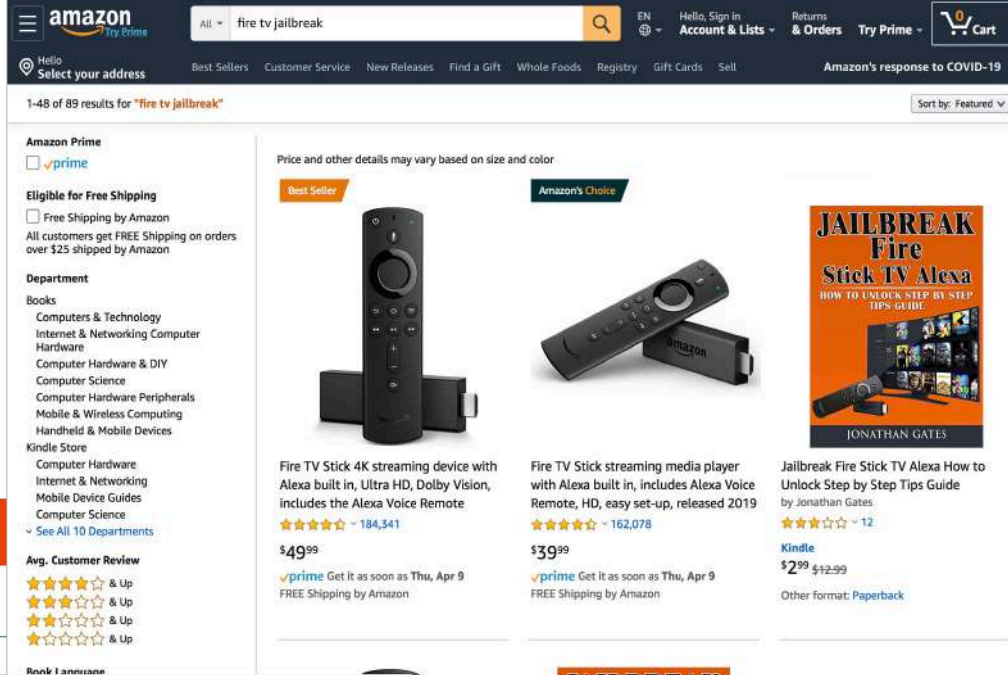
This IPTV service is popular among people who Jailbreak their Firestick or Android TV Boxes. This is similar to Bleed Video, UntiTV and Anillo Group TV.

Most Popular Tutorials

- #1 VPN for Firestick & Fire TV
- #2 Jailbreak a Firestick & Fire TV
- #3 Free Supercharge Guide
- #4 Kodi on Firestick & Fire TV
- #5 Best Kodi Addons
- #6 Best Kodi Builds
- #7 Best APKs
- #9 Best Torrent Sites
- #10 Android TV Box Resource Guide

Category Menu

Select Category



amazon
fire tv jailbreak

1-48 of 89 results for "fire tv jailbreak"

Amazon Prime

Eligible for Free Shipping

Department

Books

- Computers & Technology
- Internet & Networking Computer Hardware
- Computer Hardware & DIY
- Computer Science
- Computer Hardware Peripherals
- Mobile & Wireless Computing
- Handheld & Mobile Devices

Kindle Store

- Computer Hardware
- Internet & Networking
- Mobile Device Guides
- Computer Science

Avg. Customer Review

- ★★★★☆ & Up
- ★★★★☆ & Up
- ★★★★☆ & Up
- ★★★★☆ & Up

Book Language

Price and other details may vary based on size and color

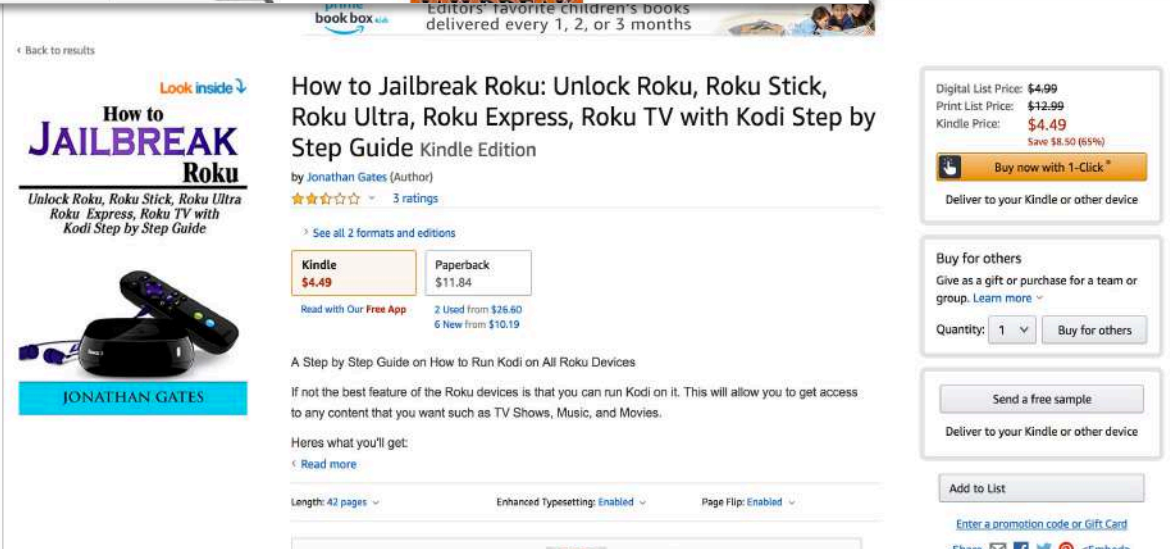
Best Seller

Amazon's Choice

Fire TV Stick 4K streaming device with Alexa built in, Ultra HD, Dolby Vision, includes the Alexa Voice Remote

Fire TV Stick streaming media player with Alexa built in, includes Alexa Voice Remote, HD, easy set-up, released 2019

Jailbreak Fire Stick TV Alexa How to Unlock Step by Step Tips Guide



Look inside

How to Jailbreak Roku: Unlock Roku, Roku Stick, Roku Ultra, Roku Express, Roku TV with Kodi Step by Step Guide Kindle Edition

by Jonathan Gates (Author)

★★★★☆ - 3 ratings

Kindle \$4.49

Paperback \$11.84

Read with Our Free App

2 Used from \$26.60

6 New from \$10.19

A Step by Step Guide on How to Run Kodi on All Roku Devices

If not the best feature of the Roku devices is that you can run Kodi on it. This will allow you to get access to any content that you want such as TV Shows, Music, and Movies.

Here's what you'll get:

Length: 42 pages

Enhanced Typesetting: Enabled

Page Flip: Enabled

Digital List Price: \$4.99

Print List Price: \$12.99

Kindle Price: \$4.49

Save \$8.50 (65%)

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Deliver to your Kindle or other device

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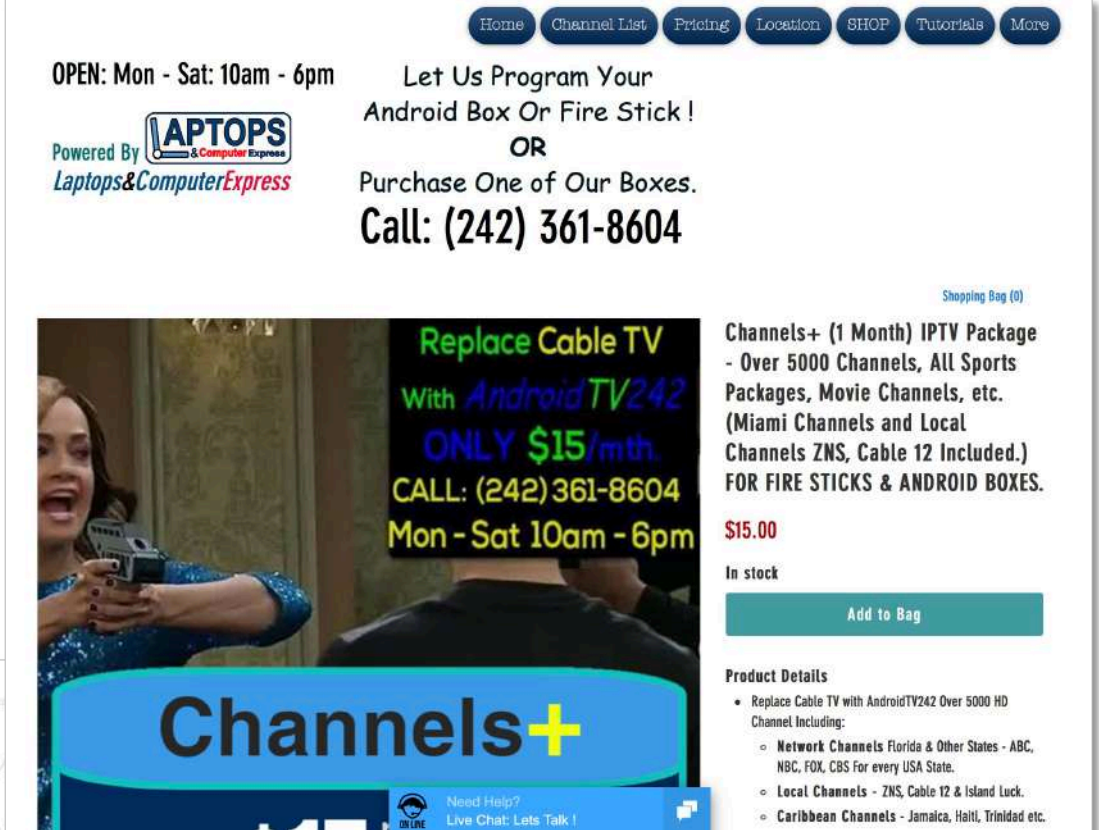
[Share](#) [Mail](#) [Facebook](#) [Twitter](#) [Pinterest](#) [Embed](#)

Piracy model 3.3: Software and Devices

Illicit Streaming Devices (ISDs)

B2C, B2B2C: Custom-made pre-configured devices. Sold by online retailers, physical retailers, or private clubs. Buy the pieces & DIY

Yes it's piracy: If it distributes unlicensed content and infringing services



Home Channel List Pricing Location SHOP Tutorials More

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Laptops & Computer Express

Let Us Program Your Android Box Or Fire Stick!
OR
Purchase One of Our Boxes.
Call: (242) 361-8604

Shopping Bag (0)

Replace Cable TV With **AndroidTV242** ONLY \$15/mth. CALL: (242) 361-8604 Mon - Sat 10am - 6pm

Channels+ (1 Month) IPTV Package - Over 5000 Channels, All Sports Packages, Movie Channels, etc. (Miami Channels and Local Channels ZNS, Cable 12 Included.) FOR FIRE STICKS & ANDROID BOXES.

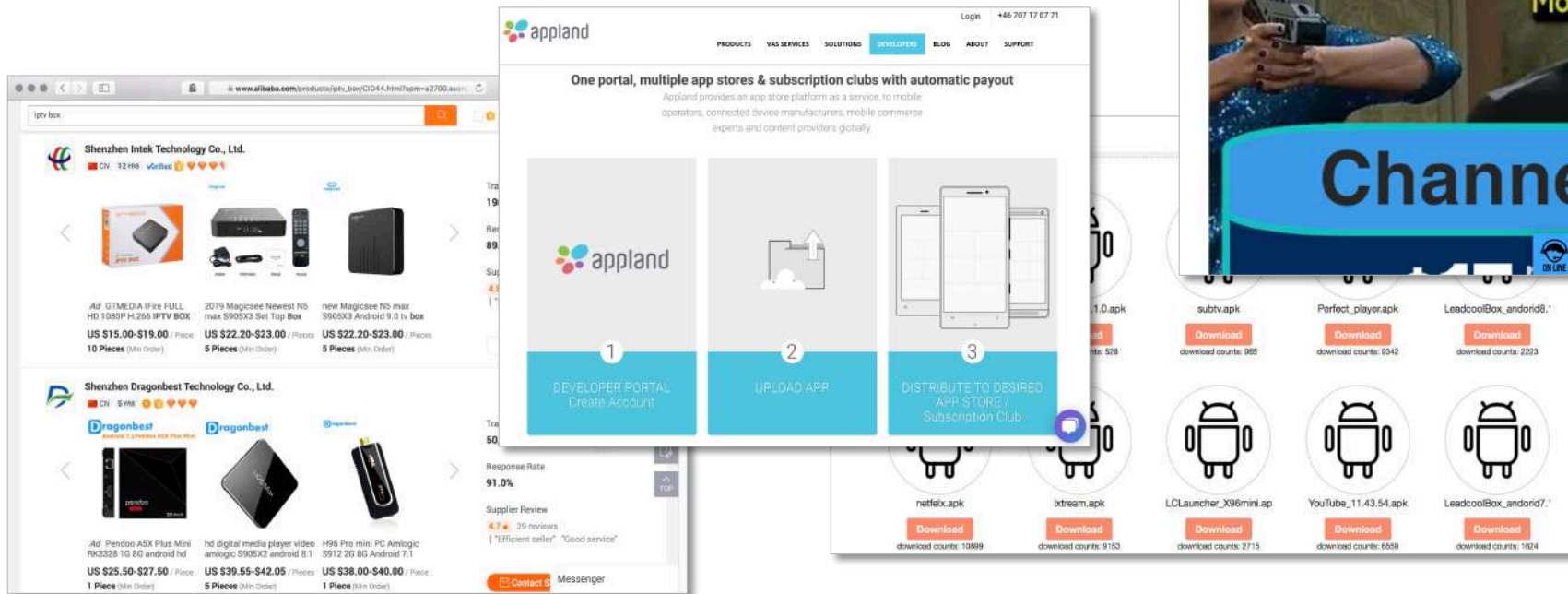
\$15.00

In stock

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Product Details

- Replace Cable TV with AndroidTV242 Over 5000 HD Channel Including:
 - Network Channels Florida & Other States - ABC, NBC, FOX, CBS For every USA State.
 - Local Channels - ZNS, Cable 12 & Island Luck.
 - Caribbean Channels - Jamaica, Haiti, Trinidad etc.



appland

PRODUCTS VAS SERVICES SOLUTIONS DEVELOPERS BLOG ABOUT SUPPORT

One portal, multiple app stores & subscription clubs with automatic payout

1 DEVELOPER PORTAL Create Account

2 UPLOAD APP

3 DISTRIBUTE TO DESIRED APP STORE / Subscription Club

netflix.apk download counts: 10889

ixstream.apk download counts: 9153

L Launcher_X96mini.apk download counts: 2715

YouTube_11.43.54.apk download counts: 6558

LeadcoolBox_android7.apk download counts: 1624

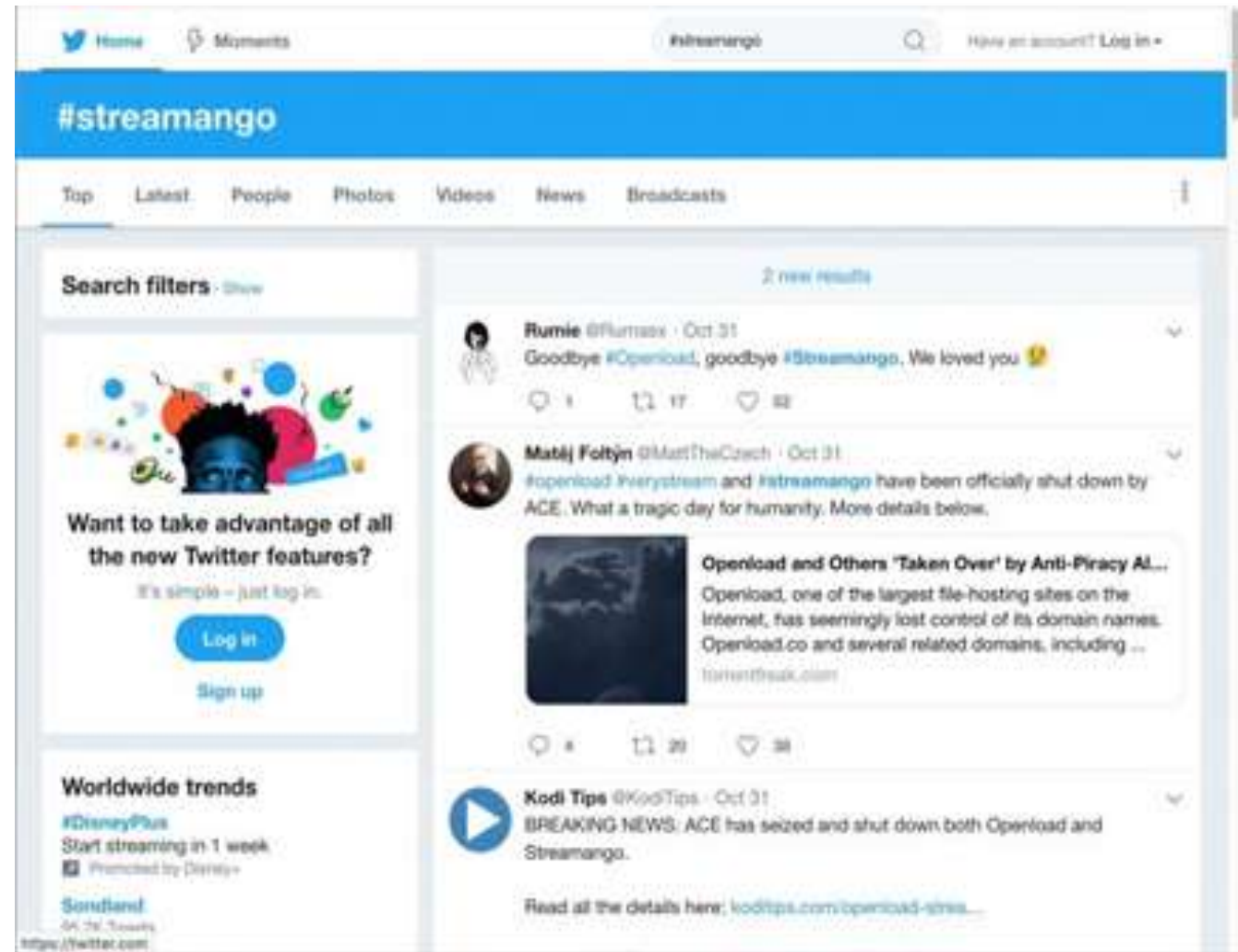


Piracy Model 4: Wholesale pirates

B2B: Hosting sites that feed content to illegal streaming and linking sites

Yes it's piracy

Streamango operated more than 1,000 servers in Romania, France and Germany and “generated more traffic than... Hulu, HBO Go, Sky, and the Web sites for CBS News and NBC News.”



Source:Twitter

Piracy Model 5: Build an “IPTV service”

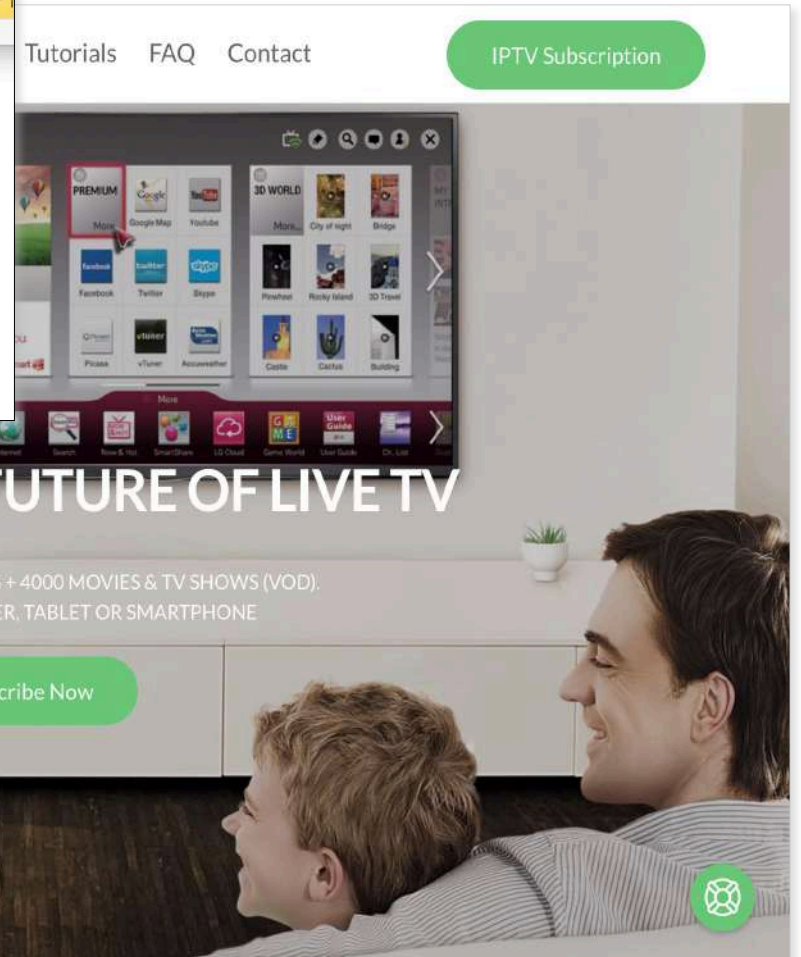
Pay TV's and OTT's biggest competition

B2C: Consumer pays subscription; PPV, xVOD are add-ons

Access via Web/PC, Mobile, Streaming CPE, ISD

B2B: Portal provider acts as a link-aggregator, or links directly to hosted content

Is it piracy?: Yes, services distributing unlicensed content are pirates

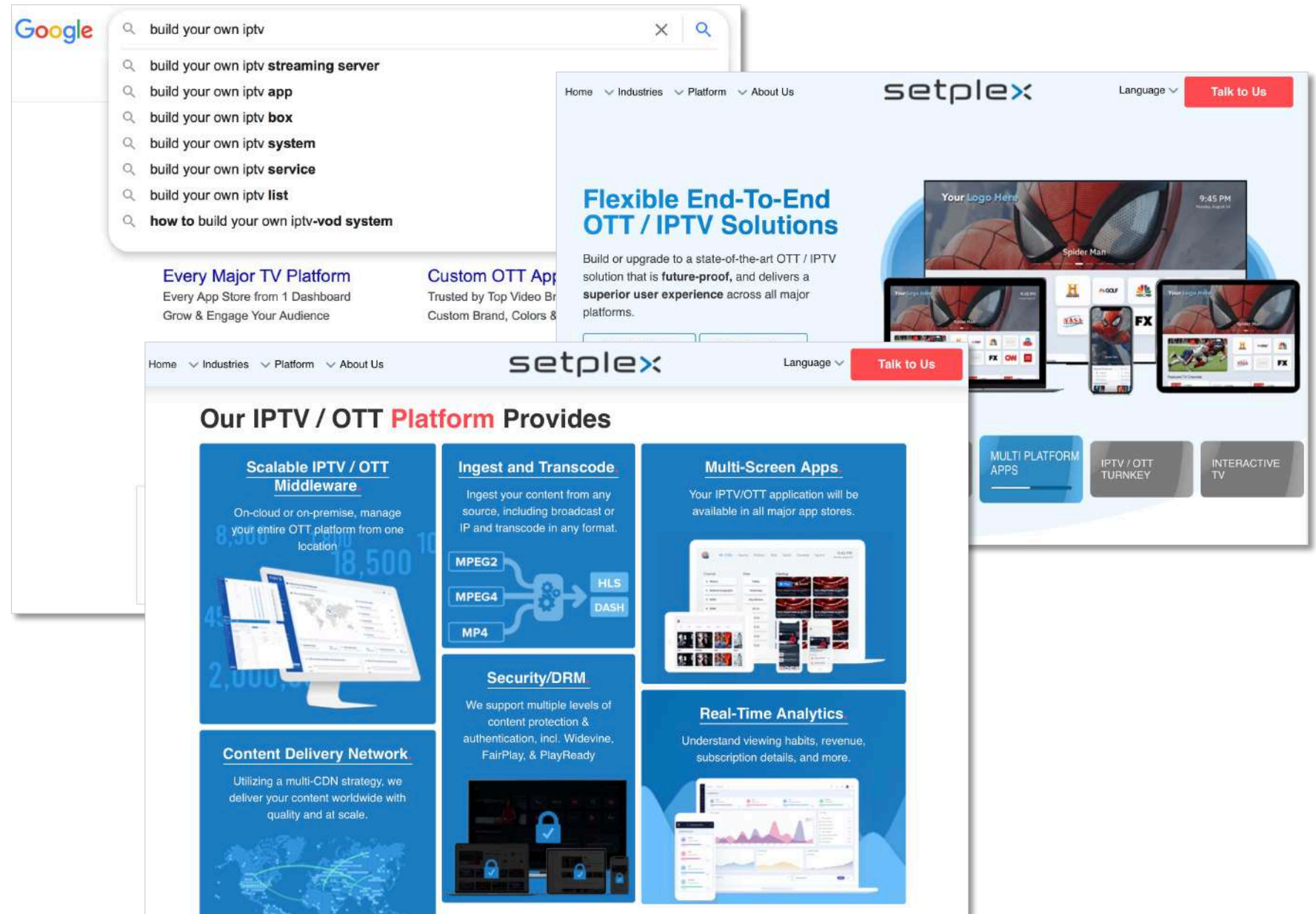


Piracy Model 5.1: ... Choose a service platform

B2C: Consumer-facing aggregators deliver via Web, apps, mobile

B2B: Entities that sell the software, services and content to enable these consumer-facing aggregators

Yes it enables piracy: if the video provider is not licensed to distribute the programming



The image collage illustrates the process of choosing a service platform for IPTV/OTT. It features a Google search for "build your own iptv" with suggestions like "streaming server", "system", "service", and "vod system". The main focus is the Setplex website, which offers "Flexible End-To-End OTT / IPTV Solutions". The site highlights that it is trusted by major TV platforms and app stores, and provides a superior user experience. A detailed view of the platform features includes:

- Scalable IPTV / OTT Middleware:** On-cloud or on-premise, manage your entire OTT platform from one location.
- Ingest and Transcode:** Ingest your content from any source, including broadcast or IP and transcode in any format. Supported formats include MPEG2, MPEG4, MP4, HLS, and DASH.
- Multi-Screen Apps:** Your IPTV/OTT application will be available in all major app stores.
- Security/DRM:** We support multiple levels of content protection & authentication, incl. Widevine, FairPlay, & PlayReady.
- Real-Time Analytics:** Understand viewing habits, revenue, subscription details, and more.
- Content Delivery Network:** Utilizing a multi-CDN strategy, we deliver your content worldwide with quality and at scale.

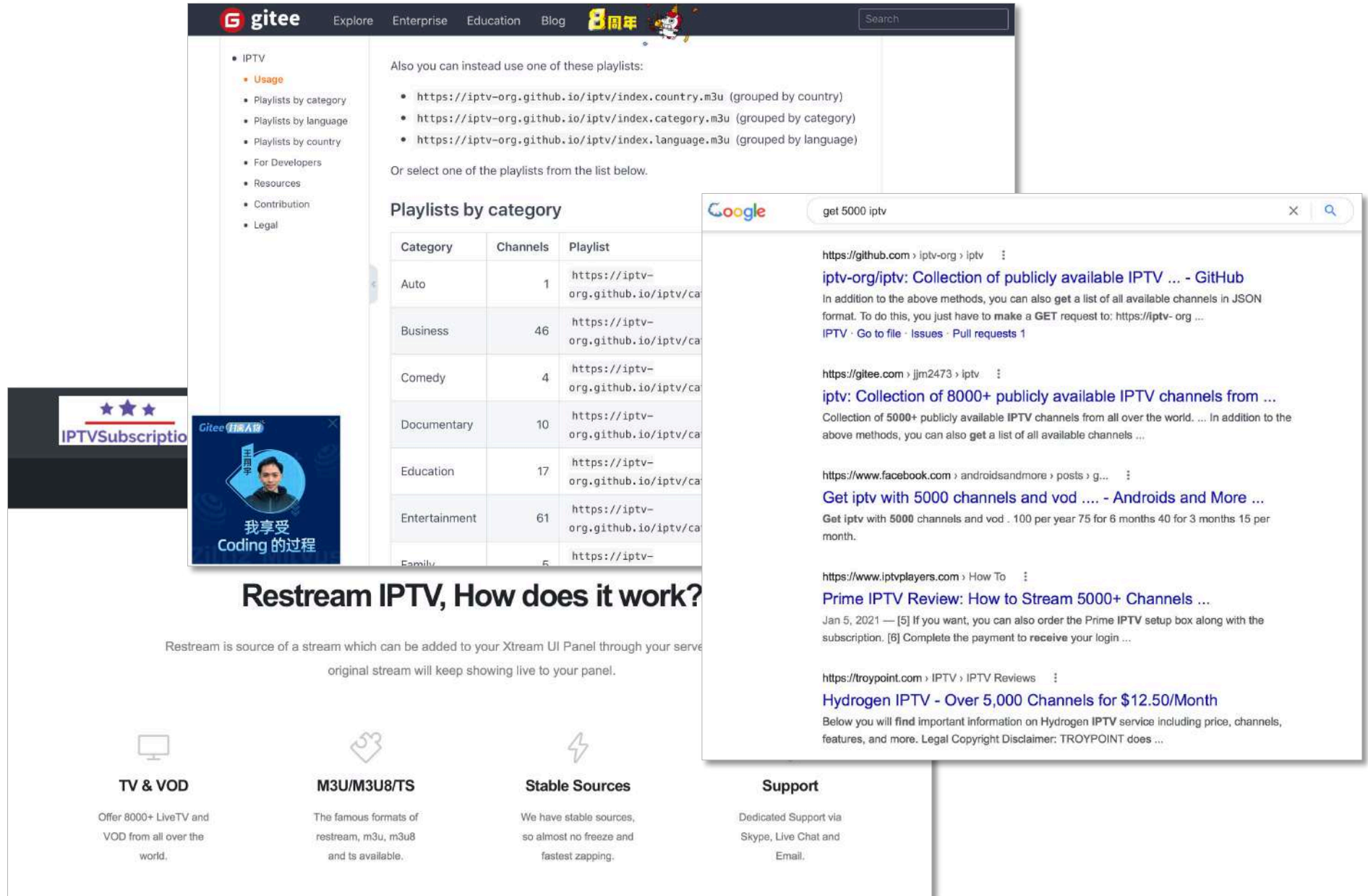
Additional features shown include "MULTI PLATFORM APPS", "IPTV / OTT TURNKEY", and "INTERACTIVE TV".

Piracy Model 5.2: ... Find bundled programming

B2C: (Not applicable)

B2B: Entities sell series programming, live broadcast, movies and other content as bundles

Yes it's piracy: if the provider has no direct relationship with the legitimate rights-owner / rights-holder



The image shows a composite of three screenshots related to IPTV piracy. The top screenshot is from Gitee, displaying a list of IPTV playlists categorized by type (Auto, Business, Comedy, Documentary, Education, Entertainment, Family). Below the list is a table with columns for Category, Channels, and Playlist. The middle screenshot is a Google search for 'get 5000 iptv', showing search results for various IPTV services and their channel counts. The bottom screenshot is a webpage titled 'Restream IPTV, How does it work?' which describes the service and lists features like TV & VOD, M3U/M3U8/TS, Stable Sources, and Support.

Category	Channels	Playlist
Auto	1	https://iptv-org.github.io/iptv/ca
Business	46	https://iptv-org.github.io/iptv/ca
Comedy	4	https://iptv-org.github.io/iptv/ca
Documentary	10	https://iptv-org.github.io/iptv/ca
Education	17	https://iptv-org.github.io/iptv/ca
Entertainment	61	https://iptv-org.github.io/iptv/ca
Family	5	https://iptv-org.github.io/iptv/ca

Restream IPTV, How does it work?

Restream is source of a stream which can be added to your Xtream UI Panel through your server. The original stream will keep showing live to your panel.

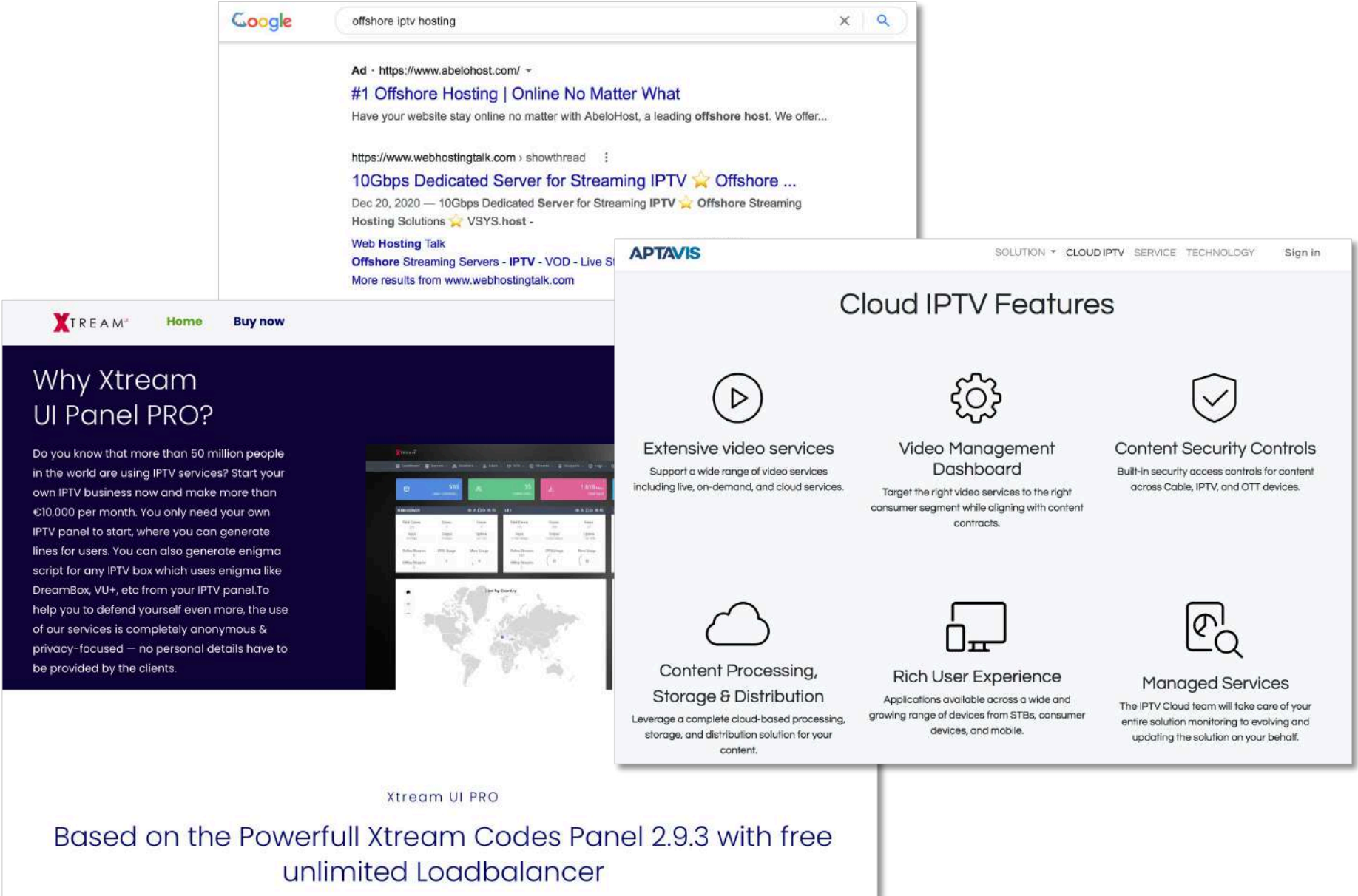
- TV & VOD**
Offer 8000+ LiveTV and VOD from all over the world.
- M3U/M3U8/TS**
The famous formats of restream, m3u, m3u8 and ts available.
- Stable Sources**
We have stable sources, so almost no freeze and fastest zapping.
- Support**
Dedicated Support via Skype, Live Chat and Email.

Piracy Model 5.3: ... Choose a back-end in the cloud

B2C: (Not applicable)

B2B: Entities that sell Hosting services, backed with service level agreements, technical support, knowledgebase, and professional services

Enables piracy: If the platform is enabling a service that distributes unlicensed content, it could receive takedown orders



Google offshore iptv hosting

Ad · <https://www.abelohost.com/>
#1 Offshore Hosting | Online No Matter What
Have your website stay online no matter with AbeloHost, a leading **offshore host**. We offer...

<https://www.webhostingtalk.com> › showthread
10Gbps Dedicated Server for Streaming IPTV ★ Offshore ...
Dec 20, 2020 — 10Gbps Dedicated Server for Streaming IPTV ★ Offshore Streaming Hosting Solutions ★ VSYS.host -
Web Hosting Talk
Offshore Streaming Servers - IPTV - VOD - Live S...
More results from www.webhostingtalk.com

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Why Xstream UI Panel PRO?

Do you know that more than 50 million people in the world are using IPTV services? Start your own IPTV business now and make more than €10,000 per month. You only need your own IPTV panel to start, where you can generate lines for users. You can also generate enigma script for any IPTV box which uses enigma like DreamBox, VU+, etc from your IPTV panel. To help you to defend yourself even more, the use of our services is completely anonymous & privacy-focused – no personal details have to be provided by the clients.

Xstream UI PRO

Based on the Powerfull Xstream Codes Panel 2.9.3 with free unlimited Loadbalancer

APTAVIS SOLUTION CLOUD IPTV SERVICE TECHNOLOGY Sign in

Cloud IPTV Features

- Extensive video services**
Support a wide range of video services including live, on-demand, and cloud services.
- Video Management Dashboard**
Target the right video services to the right consumer segment while aligning with content contracts.
- Content Security Controls**
Built-in security access controls for content across Cable, IPTV, and OTT devices.
- Content Processing, Storage & Distribution**
Leverage a complete cloud-based processing, storage, and distribution solution for your content.
- Rich User Experience**
Applications available across a wide and growing range of devices from STBs, consumer devices, and mobile.
- Managed Services**
The IPTV Cloud team will take care of your entire solution monitoring to evolving and updating the solution on your behalf.

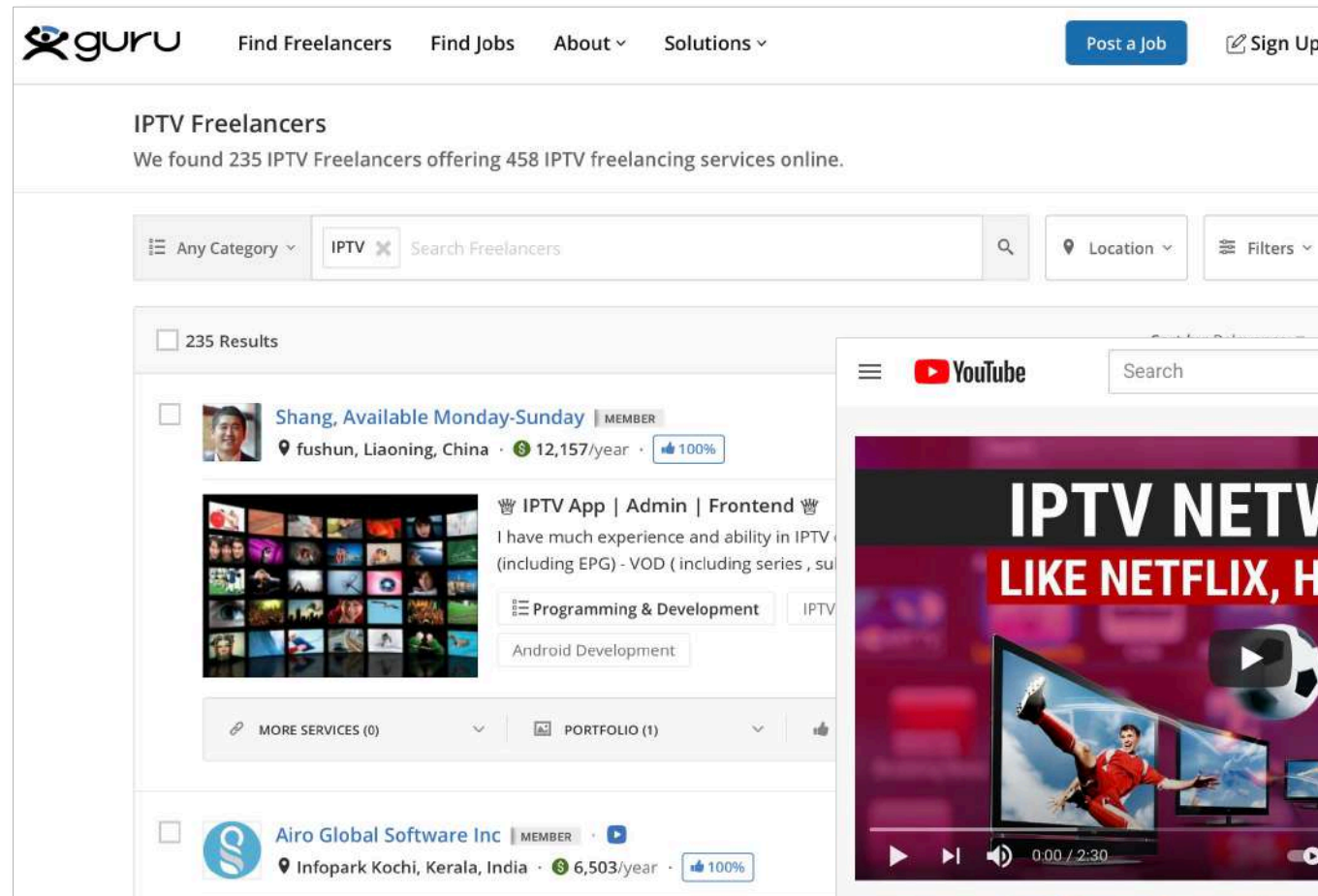
Piracy Model 5.4: ... Use a contractor or learn online

B2C: (Not applicable)

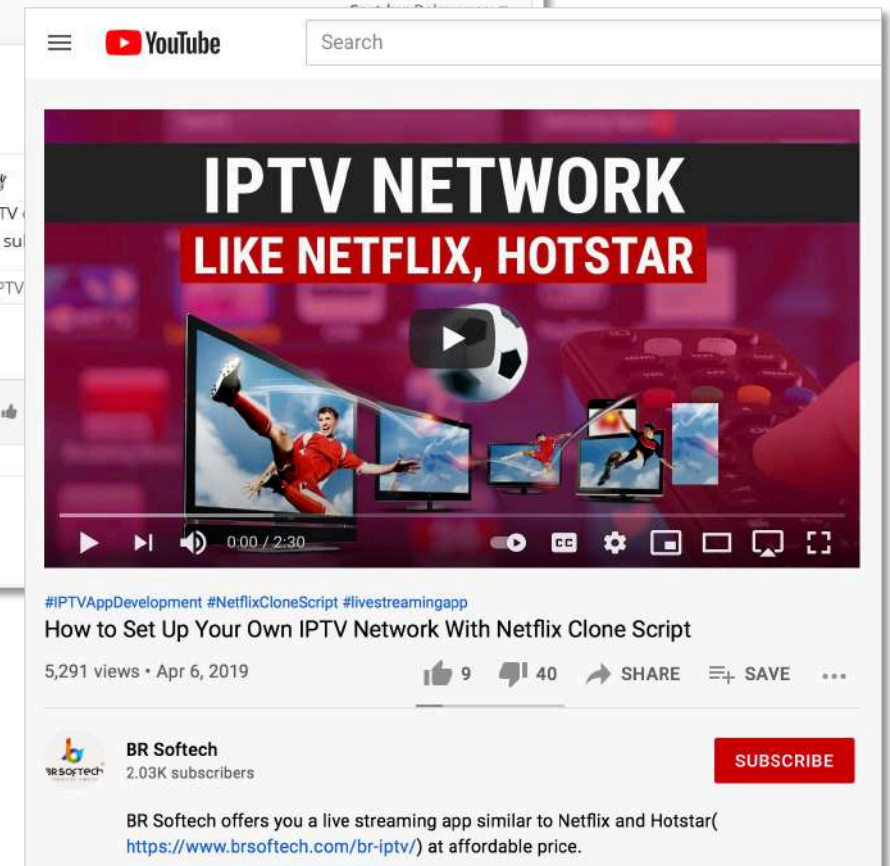
B2B: Professional services for hire, to build the platform, build the apps, do the back-end integration

Lots of instructions available online

Yes it can enable piracy




The screenshot shows a freelance marketplace interface. At the top, there are navigation links: 'guru', 'Find Freelancers', 'Find Jobs', 'About', and 'Solutions'. There are buttons for 'Post a Job' and 'Sign Up'. The main heading is 'IPTV Freelancers' with a subtext: 'We found 235 IPTV Freelancers offering 458 IPTV freelancing services online.' Below this is a search bar with 'Any Category' and 'IPTV' selected. The results section shows '235 Results'. The first profile is for 'Shang, Available Monday-Sunday' from 'fushun, Liaoning, China' with a rate of '\$12,157/year' and a 100% rating. The profile lists services: 'IPTV App | Admin | Frontend', 'Programming & Development', and 'Android Development'. The second profile is for 'Airo Global Software Inc' from 'Infopark Kochi, Kerala, India' with a rate of '\$6,503/year' and a 100% rating.



The screenshot shows a YouTube video player. The video title is 'How to Set Up Your Own IPTV Network With Netflix Clone Script'. The video has 5,291 views and was posted on April 6, 2019. The channel is 'BR Softech' with 2.03K subscribers. The video description includes the text: 'BR Softech offers you a live streaming app similar to Netflix and Hotstar(<https://www.brsotech.com/br-iptv/>) at affordable price.'


Piracy Model 6: Or... Use a turnkey solution



KEMO IPTV

Earn Money With IPTV Reseller

Once be a reseller, You can enjoy reseller prices, Promotions, support and training.



Make Money as IPTV Reseller with KEMO IPTV

Our Promotional Offer Package:

- 1 Logo
- 2 Domain .com
- 3 Hosting For one year + SSL Certificate
- 4 Ready Website design [Click here to see the sample website https://kemotest.com](https://kemotest.com)
- 5 Easy Woocommerce products and pricing control by seller
- 6 Paypal payment integration with woocommerce (guide is included)
- 7 IPTV Reseller Panel credited with balance to your panel
- 8 You can sell monthly, 3, 6 , 12 months subscriptions to your clients
- 9 Panel accept unlimited customers
- 10 You can always top up credits to your panel by making new order for top up from <https://kemoiptv.com>

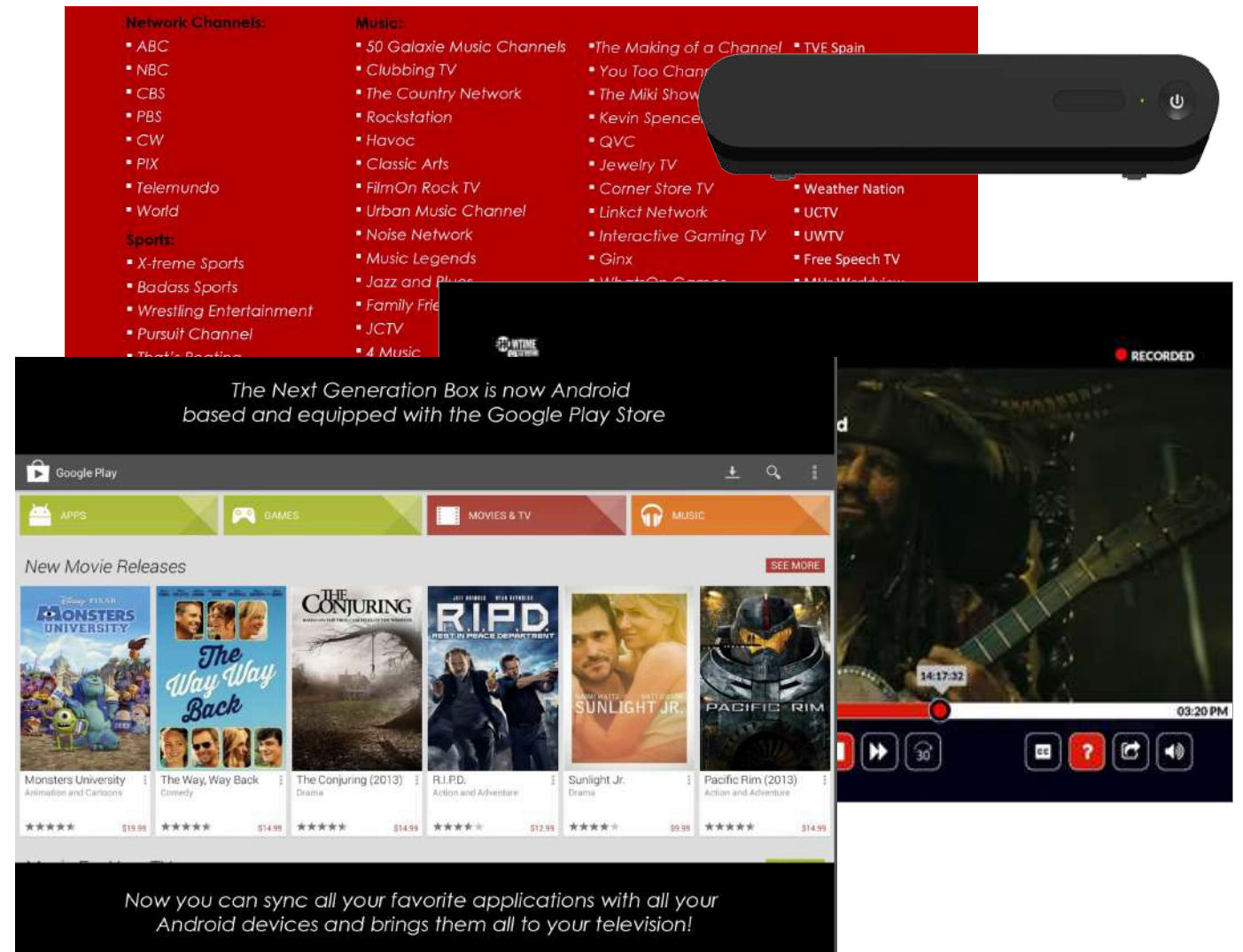
Website + 72 Credits	Website + 144 Credits	Website + 216 Credits	Website + 366 Credits
<p>\$295 Promo Price</p> <ul style="list-style-type: none"> ⦿ Full Website Ready To Go ⦿ 1 Year Activation: 12 Crdts ⦿ 6 Month Activation: 6 Crdts ⦿ 3 Month Activation: 3 Crdts ⦿ Pay As You Go! No Contract! ⦿ Credits Not Expire ⦿ 24/7 Support <p style="background-color: #f0e68c; padding: 5px; text-align: center;">Order Now</p>	<p>\$470 Promo Price</p> <ul style="list-style-type: none"> ⦿ Full Website Ready To Go ⦿ 1 Year Activation: 12 Crdts ⦿ 6 Month Activation: 6 Crdts ⦿ 3 Month Activation: 3 Crdts ⦿ Pay As You Go! No Contract! ⦿ Credits Not Expire ⦿ 24/7 Support <p style="background-color: #e91e63; padding: 5px; text-align: center;">Order Now</p>	<p>\$630 Promo Price</p> <ul style="list-style-type: none"> ⦿ Full Website Ready To Go ⦿ 1 Year Activation: 12 Crdts ⦿ 6 Month Activation: 6 Crdts ⦿ 3 Month Activation: 3 Crdts ⦿ Pay As You Go! No Contract! ⦿ Credits Not Expire ⦿ 24/7 Support <p style="background-color: #3949ab; padding: 5px; text-align: center;">Order Now</p>	<p>\$925 Promo Price</p> <ul style="list-style-type: none"> ⦿ Full Website Ready To Go ⦿ 1 Year Activation: 12 Crdts ⦿ 6 Month Activation: 6 Crdts ⦿ 3 Month Activation: 3 Crdts ⦿ Pay As You Go! No Contract! ⦿ Credits Not Expire ⦿ 24/7 Support <p style="background-color: #27ae60; padding: 5px; text-align: center;">Order Now</p>
<p>IPTV Website Be Ready To Sell Online</p> <p style="font-size: 2em; font-weight: bold; color: #fff;">\$145</p> <p>One Time</p> <ul style="list-style-type: none"> ⦿ Domain ⦿ Hosting + SSL ⦿ Woocommerce 	<p>IPTV APP Branded To Your Company</p> <p style="font-size: 2em; font-weight: bold; color: #fff;">\$450</p> <p>One Time</p> <ul style="list-style-type: none"> ⦿ Branded By Your Logo ⦿ Listed on Google Play ⦿ Support All Android 		

Piracy model 7: “Full service” Reseller

A video pirate using retail (**B2C**) and wholesale (**B2B2C**) business models

Business models employed:

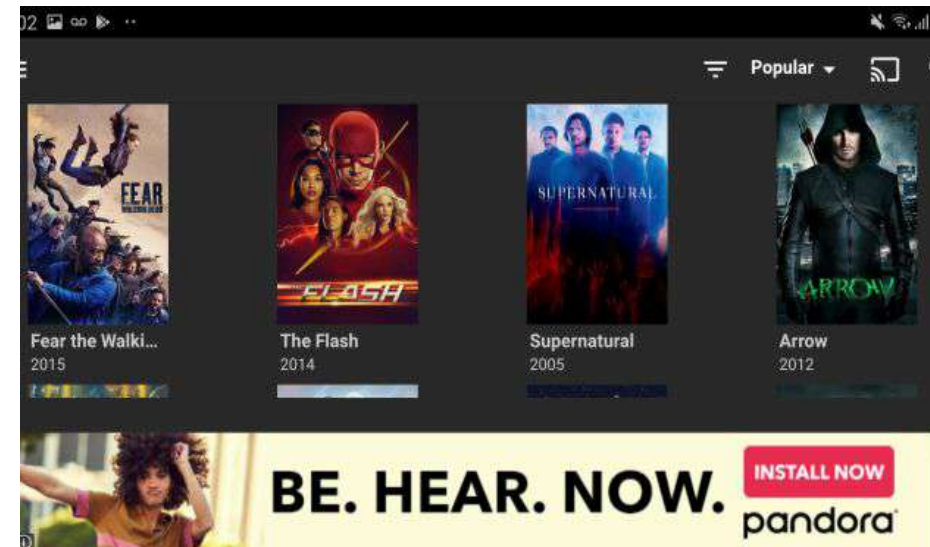
- **ISD**: Android TV streaming box – Buy or rent
- **Streaming**: Live TV, On-demand channels, Web and email on TV for low monthly fee.
- **Pay TV**: A service bundle with 70 TV channels, 7-day catch-up and 50 hours of cloud DVR at a base price, with premium upgrades
- **An All-in-One bundle**: add high-speed Internet and home telephone services
- **Wholesale**: Streaming retailers. In some cases, the resellers don't know they're selling fraudulent offerings
- **Advertising**: Some are known to sell linear TV ad slots and have outbound sales forces



Piracy model 8: Advertising fraud

B2B2C: Fraudulent sites and apps running legitimate ads

- Tea TV
 - Pirated streams of major movie releases and premium TV shows.
 - Ads come from ad inventories intended for programmatic placement.
- Business model
 - Free to consumer; funded by payments from advertisers.

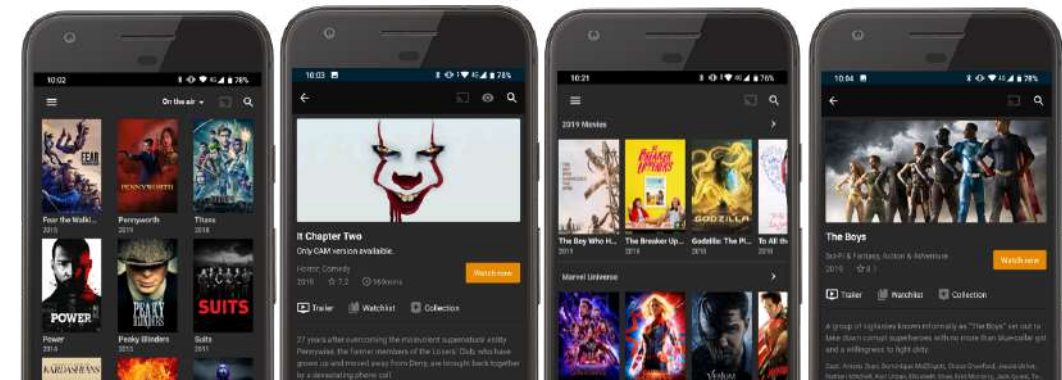


Source: CNBC

Source: Google Play app store

Yes it's piracy: The advertising is presented in fraudulent apps without the advertiser's knowledge

But do advertisers look the other way?



Piracy model 9: Consumer Cyberattacks

- Databases bought via clandestine online markets
- Used in automated brute force attacks to penetrate pay TV and OTT streaming accounts
- Unlocked accounts are re-sold or used for other purposes ...



Image source: The Hollywood Reporter

Piracy (fraud) model 10: Theft of You

- **Phishing...**
 - *“Please re-set your password”*
 - End user opens mail, accesses account, re-sets password
 - Pirate captures access details, can access other PII, financial accounts
 - Pirate can resell the account, steal content, steal bandwidth and services...
- **Ongoing access...**
 - *“A Software Update is Now Available”*
 - Resembles legitimate app with legitimate advertising but is fraud in disguise
 - Installs malware and triggers a ransom attack
 - Uses CPE cycles for bitcoin-mining
 - The pirate site splits the profits with the malware author

Content Protection Summit



Piracy Use-cases and Business Models

- **What is video piracy?**
- **Where piracy happens**
- **How piracy happens: piracy models**
- **What do we do about it?**



Piracy Monitor

STAY SAFE

Subscribe:

<https://piracymonitor.org/>

Progress in the fight

- **Europe & UK**

- Collaborations between law enforcement (Europol, Interpol, national, local police), anti-piracy advocates, media companies, sports leagues and others; resulting in seizures, fines and more.
- Piracy is flat or declining in some European countries

- **Asia/Pacific**

- Collaborations between AVIA, its members, and regulators to enact site-blocking regulations in Indonesia, Malaysia, Singapore, Philippines have resulted in up to 50% reduction of pirate distribution between 2019-2020.
- In contrast with Vietnam, which rose 50% 2019 > 2020

- **United States**

- Piracy is now a felony under US law, punishable by up to 10 years in prison (18 USC §2319C)
- US Copyright Office 2020 recommendations to update DMCA (Section 512 of Section 17 recommends ISPs establish repeat infringers policies, and require ISPs to expose infringers)
- Use of legal complaints to motivate pirate sites and their network providers to stop infringing (IBCAP)

Fighting piracy: technical elements

Enforcing service parameters

- # of Users/Account, # of Devices/Account, Offer management, In-home / Out-of-home ...

Traditional Pay TV Security

- CAS, DRM, Key Mgmt, Secure player, HRoT, Secure stream mapping, virtual addressing ... External audit

Usage Monitoring & Analytics

- Auth. requests, Account access requests, License requests, Location, Watching for anomalies ...

Content Identification

- Watermarking (Content modification), Fingerprint extraction > Monitoring > Evidence-building ...

Network Test & Source Verif.

- Unexpected stream origins, AI/ML in the network, DPI, Detecting your content on pirate networks ...

Service Administration

- Applying countermeasures: On-screen Msgs., QoS Degradation, Session termination, Blocking ...

Fighting piracy: Ecosystem engagement

Marketing

Online partners

Media Industry

Anti-piracy organizations

Law Enforcement

Governmental

Financial

Consumer Education

- **By video providers: Advanced business rules, Offers that incent infringers to become subscribers...**
- **Takedowns: Search engines, CDNs & cloud providers, “UGC” OTT providers, Social media ...**
- **M&E Industry Assns (MESA/CDSA), Sports leagues, Media companies, Ad networks, Technical orgs.**
- **AAPA (EU), FACT (UK), FAPAV (Italy), Rights Alliance (Denmark), Hadopi (France), MPA/ACE ...**
- **Local, national and regional police, Interpol, Europol and peer organizations outside the EU and UK**
- **Policymakers, Agencies that oversee Intellectual property and Copyright, Trade, Telecoms, Media ...**
- **Traditional and online financial networks, Banks and financial institutions. Understand fraud ...**
- **Understanding the threats, Consequences of piracy, Consequences of inaction, “Digital Citizen” ...**



Steven Hawley
*Founder & Managing
Director,
Piracy Monitor*

M&E Piracy: Use-cases and Business Models

Subscribe to Piracy Monitor

<https://piracymonitor.org/>

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29th June, 2021 | 13:00 - 18:00 BST | Virtual