



# FIGHTING ILLEGAL STREAMING

Football Tournament Russia 2018

Report #3, June 28 - July 15



It's smarter, it's safer. It's VO.

**vo**  
viaccess-orca



# Contents

<b>PART 1 – ANALYSIS FROM OUR ANTI-PIRACY SERVICES – RESULTS FROM THE FINAL MATCHES</b>	<b>2</b>
Total number of links on the top 5 hosted domains for the final phase matches	2
Total number of links for the top 5 domain locations	2
Total five ISPs hosting the sites described above	3
Brazil and Belgium – detailed figures	5
<b>PART 2 – INSIDE PIRATE PLATFORMS</b>	<b>5</b>
<b>PART 3 – AN INTERVIEW WITH IDO SHNEIOR, CHIEF CUSTOMER OFFICER, CHARLTON</b>	<b>11</b>



## PART 1 – ANALYSIS FROM OUR ANTI-PIRACY SERVICES – RESULTS FROM THE FINAL MATCHES

Thanks to our dedicated Anti-Piracy Services, we were able to measure several aspects of illegal streaming observed in the course of the final phase matches listed below. Please note that these figures solely represent the links that were not affected nor targeted, nor seen by the tracking tools used by many rights-owners and Pay-TV operators during these matches. In no way do they represent the total number of the links present during these football matches.

### TOTAL NUMBER OF LINKS ON THE TOP 5 HOSTED DOMAINS FOR THE FINAL PHASE MATCHES

TOP 5 – LINK HOSTER DOMAINS	
1. Facebook.com	4841 links
2. Periscope.tv	2906 links
3. Emb.Aliez.me	1775 links
4. Sport365.Live	1302 links
5. Sport247.Live	1214 links

If we compare these figures to those in the first two Illegal Streaming Reports, it is clear that the overall number of links has drastically grown; as the tournament progressed, the more the number of illegal streaming links increased. Facebook and Periscope are by far the top two link hosted domains in terms of illegal link hosting.

### TOTAL NUMBER OF LINKS FOR THE TOP 5 DOMAIN LOCATIONS

TOP 5 – LOCATION DOMAINS	
1. Sport365.Live	3709 links
2. Sport247.Live	3408 links
3. Streamwoop.net	1940 links
4. Pscp.tv	1872 links
5. Livetv.sx	1712 links

Here again, we note significant changes, with new location domains entering the top three sites for illegal link hosting. Platforms such as Rojadireta disappear from the table.

## TOP FIVE ISPs HOSTING THE SITES DESCRIBED ABOVE

TOP 5 – ISP	
1. 3NT Solutions	2986 links
2. Nforce Entertainment	1775 links
3. Marosnet	977 links
4. Contabo GmbH	860 links
5. Namecheap	451 links

The above results are the mere translation of the changes in the location domains, here we have different names in line with changes.

## RESULTS FROM JUNE 28 TO JULY 3, 2018

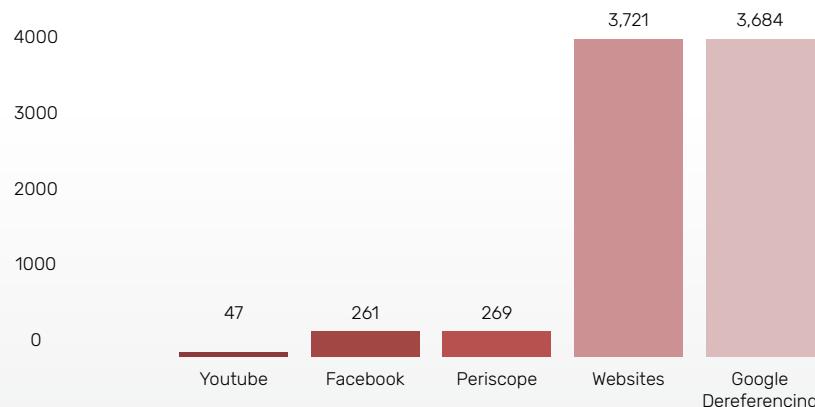
Date	Match	Scoring	Total Detected Links	Links on Facebook	Links on Youtube	Links on Periscope
28.6.18	England - Belgium	0 - 1	918	205	67	42
30.6.18	Uruguay - Portugal	2 - 1	1108	270	63	150
30.6.18	France - Argentina	4 - 3	1193	312	94	174
1.7.18	Croatia - Denmark	1 - 1 (3-2)	1162	426	62	23
1.7.18	Spain - Russia	1 - 1 (3-4)	1359	380	75	230
2.7.18	Belgium - Japan	3 - 2	1079	180	38	166
2.7.18	Brazil - Mexico	2 - 0	1188	259	72	274
3.7.18	Sweden - Switzerland	1 - 0	969	207	17	68

## FINALE FROM JULY 3 TO JULY 15, 2018

Date	Match	Scoring	Total number of Links	Links on Facebook	Links on Youtube	Links on Periscope
3.7.18	Columbia - England	1 - 1 (3-4)	1522	466	53	253
6.7.18	Uruguay - France	0 - 2	2264	340	85	218
6.7.18	Brazil - Belgium	1 - 2	4325	261	47	269
7.7.18	Sweden - England	0 - 2	1104	285	67	129
7.7.18	Russia - Croatia	2 - 2 (3-4)	1337	389	54	235
10.7.18	France - Belgium	1 - 0	1303	261	92	269
11.7.18	Croatia - England	2 - 1	4442	391	75	305
14.7.18	Belgium - England	2 - 0	947	323	32	101
15.7.18	France - Croatia	4 - 2	1406	415	75	265

## BRAZIL AND BELGIUM - DETAILED FIGURES

We would like to focus on Friday July 6th. We were asked by one of our customers to monitor the illegal streaming links and used our [Eye on Piracy Services](#). Thanks to these services, we could have **all** illegal links dereferenced on Google (in total **3684** illegal links); we could further shut down **47** illegal videos detected on YouTube, as well as **262** illegal streams on Facebook and **269** on Periscope TV.



In the course of the match, the total viewers on Facebook represented approximately 887,956 end-users with around 40% in Arabic. At the same time, we had around 80,300 viewers on YouTube and more than one million for Periscope TV.

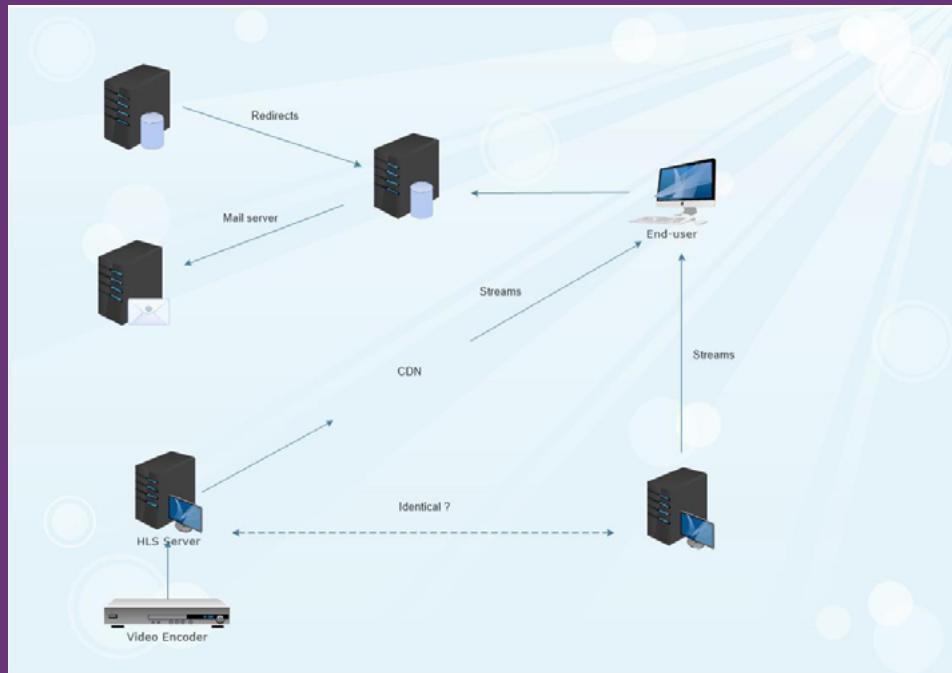
**We were able to dereference 100% of those links during live events on Facebook, Periscope TV and YouTube.**

## PART 2 – INSIDE PIRATE PLATFORMS

For this third edition, we have elected to zoom inside the best known and dedicated of these content platforms, to better understand who they are and how they serve illegal streaming. You can see a live tournament match that was available on one of these platforms, in the picture on the left. We shall share some of the key findings from our intelligence activities, but not all, as behind certain of these platforms we could trace activities that have nothing to do with illegal streaming, but the gravity of which could only be reported to the relevant authorities.

This will be one of the subjects of our special IBC edition.

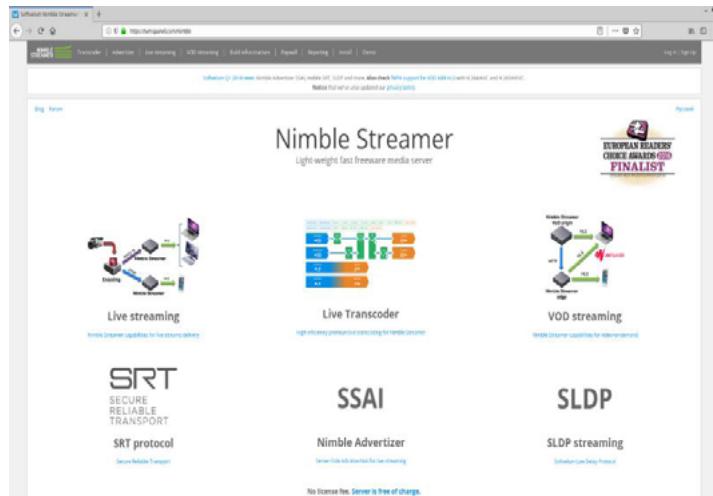




**Example of a Typical Platform Infrastructure**

As expected, our investigation during the tournament revealed once again that the pirate networks are well organized and keen to hide their activities. They use standard stream protection techniques and proxy servers as you can see in the chart above. The pirate only needs to enter a list of domain names that are allowed to access the stream, preventing anybody else that the given domains from connecting directly to the server. Then, the links for the authorized domains are shared on the link farms and anybody can watch the stream.

In another example, DNS resolution of the host name usually indicates that the web service is hidden behind protection services, such as CloudFlare for instance.



Our study further confirmed that most of the content platforms use CDNs (Content Delivery Networks). They usually use of their own CDN rather than use known professional ones, like Akamai or Cloudfront.

They may also use commercial HLS servers such as Nimble. One company like Wowza Media Server, (<http://www.wowza.com/>), is an HLS solution very popular among illegal streaming services. Building streaming servers sounds pretty easy too. Tools like Wowza do everything for you and they can be quickly found and deployed. Considering how easy it is to create a web site, and integrate streaming servers you can then understand how these networks can be so volatile, a key feature for all these illegal streaming platforms that move and evolve so quickly.

One exception is for one of the most popular platforms; it only contains links to streams and does not embed any player on the site. Thus clicking on a link redirects the visitor to another external platform. This seems to always have been the operating model for this platform.

## PLATFORMS STATISTICS AND RANKING

We have used several web tools such as alexa.com, and rank2traffic.com that are available on the web to estimate the traffic on these pirate platforms. The figures below are rough estimates, but are still a good indicator of how much revenue these sites can generate.

### **Platform A: estimated pageviews is about 3.5 millions pageviews per day**

Estimated Valuation	
Advertising revenue per day:	\$ 2.5 Thousand per day
Advertising revenue per month:	\$ 75.1 Thousand per month
Advertising revenue per year:	\$ 901 Thousand per year
Estimated worth of this website:	\$ 4.51 Million
Traffic Report	
Estimated visits per day:	830 Thousand visits / day
Estimated visits per month:	24.9 Million visits / month
Estimated visits per year:	299 Million visits / year
Estimated pageviews per day:	3.58 Million pageviews / day
Estimated pageviews per month:	107 Million pageviews / month
Estimated pageviews per year:	1.29 Billion pageviews / year

**Platform B: according to Alexa.com reports, platform B has a ranking of 6792. This means that according to their statistics, it is the 6702th most popular website in the world (NB: with an evident bias toward their panel).**

- Visitors per month: 10 million
- Pageviews per month: 32 million
- Advertising revenue per month: 22,500 USD

**Platform C: according to Alexa.com reports, platform C has a ranking of 6516. This means that according to their statistics, it is the 6516th most popular website in the world (NB: with an evident bias toward their panel).**

Estimated page views per day is about 1.87 millions

Estimated Valuation	
Advertising revenue per day:	\$ 1.31 Thousand per day
Advertising revenue per month:	\$ 39.2 Thousand per month
Advertising revenue per year:	\$ 470 Thousand per year
Estimated worth of this website:	\$ 2.35 Million
Traffic Report	
Estimated visits per day:	270 Thousand visits / day
Estimated visits per month:	8.11 Million visits / month
Estimated visits per year:	97.3 Million visits / year
Estimated pageviews per day:	1.87 Million pageviews / day
Estimated pageviews per month:	56 Million pageviews / month
Estimated pageviews per year:	672 Million pageviews / year

## AD REVENUE

Another aspect of the business is the advertisement revenue on these pirate platforms. Like the majority of live streaming platforms, Platform A shows some advertisements, which is probably its only source of revenue. The source code of the site pages has several references to ad banners.

A second reference to an ad server has been found through the browser debugging console just by looking at web requests.

## HOSTING PROVIDERS

While many content platforms hide their real IP address behind anti-DDOS / CDN services like CloudFlare, we could get the real server IP address, showing that many of these hosting companies are incorporated in countries like Panama or the Seychelles. We can mention for instance PRIVATE LAYER, a hosting company incorporated in Panama with data centers in Switzerland.

The screenshot shows the Private Layer website. The top section, 'WHY PRIVATE LAYER', discusses corporate operations in Panama and Zurich, emphasizing privacy and stability. It includes links to 'Download Private Layer's Enhanced Privacy Policy' and 'Download Terms of Service'. Below this is a large image of server racks with an orange arrow pointing to one. The bottom section, 'WHY SWITZERLAND', highlights Switzerland's status as a safe haven, its location in the heart of Europe, and its role as a major internet hub. It features a large image of a Swiss flag stamp. At the bottom, there are payment options for 'CREDIT CARDS', 'DIGITAL WALLETS', and 'OTHER PAYMENT METHODS', along with a mobile device showing a sales support interface.

As often with illegal streaming platforms, there are multiple domains pointing to the same website. Along with the illegal streaming web sites, we have discovered a lot of domain names related to the platform and its possible owner or webmaster.

It is worth noting that the different domains of Platform A do not point to the same IP address, but both are owned by QuasiNetworks.

QuasiNetworks are a quite secretive hosting company and seem to be accustomed to government requests as their sibylline web page indicates.



## SOCIAL NETWORKS

Most of the time, the pirate platforms have dedicated accounts or groups on the social network platforms. Many examples can be found on Twitter or Facebook.

Platform B has also a Twitter account which is relatively new, being registered in January 2016. Interesting to note is that figures are available on their "official" platforms gathering the number of viewers. For example, the table below shows the total viewer counts for Brazil-Belgium for each detected Facebook link for any link higher than 10 end users.



Live hoster	Viewer count	Detected at
<a href="https://www.facebook.com/434008063675791">https://www.facebook.com/434008063675791</a>	146 875	2018-07-06T21:25:32
<a href="https://www.facebook.com/1044796875686717">https://www.facebook.com/1044796875686717</a>	96 000	2018-07-06T21:29:02
<a href="https://www.facebook.com/135785340663625">https://www.facebook.com/135785340663625</a>	85 200	2018-07-06T20:19:54
<a href="https://www.facebook.com/125256501714090">https://www.facebook.com/125256501714090</a>	74 065	2018-07-06T21:40:18
<a href="https://www.facebook.com/304228803452814">https://www.facebook.com/304228803452814</a>	70 739	2018-07-06T20:30:13
<a href="https://www.facebook.com/1964745583576327">https://www.facebook.com/1964745583576327</a>	26 500	2018-07-06T21:32:07
<a href="https://www.facebook.com/413760542443111">https://www.facebook.com/413760542443111</a>	20 256	2018-07-06T20:23:28
<a href="https://www.facebook.com/243783959764033">https://www.facebook.com/243783959764033</a>	19 711	2018-07-06T20:46:24
<a href="https://www.facebook.com/10156056634163183">https://www.facebook.com/10156056634163183</a>	18 100	2018-07-06T21:29:54
<a href="https://www.facebook.com/2341061279456413">https://www.facebook.com/2341061279456413</a>	18 067	2018-07-06T21:46:33
<a href="https://www.facebook.com/2009350999394835">https://www.facebook.com/2009350999394835</a>	16 988	2018-07-06T21:46:53
<a href="https://www.facebook.com/483476348774217">https://www.facebook.com/483476348774217</a>	14 700	2018-07-06T20:23:33
<a href="https://www.facebook.com/10215399008382430">https://www.facebook.com/10215399008382430</a>	12 458	2018-07-06T20:06:14
<a href="https://www.facebook.com/196756624329009">https://www.facebook.com/196756624329009</a>	10 393	2018-07-06T21:29:08

## PLATFORMS - INDIVIDUALS PROFILES

In the “early” days of piracy, the profile of the individuals behind smart card piracy was almost the same for all. Illegal streaming gathered many types of profiles, from official well-known writers to sons of wealthy industrial families, to photographers or engineers. Most are in their thirties and forties, often have been sued by sport right owners, or even by Google in certain cases, for having registered domain names very close to Google’s. They have been sentenced several times already, even given high penalties, but they seem well protected and benefit from large amounts of money to hire highly-specialized intellectual property lawyers.

Many of them are in Europe, Spain and Italy, others are in Canada or New Zealand. Even if certain jurisdictions, like those in England are active and can deliver five year jail sentences and high penalties to owners and operators of pirate streaming services, as was the case last week at the Newcastle Crown Court, site owners seem to remain unaffected.

In the Newcastle case, the owners of the Evolution Trading pirate services sold over 8000 illegal devices, and as per FACT generated more than UKP 750,000 from this activity between 2013 and 2015. They were also involved in “other activities” and had supplied the Immigration Services with false documents to sponsor an Egyptian national who maintained illegal streaming for their company. Site owners often also use the huge revenues originated from the illegal streaming to fund other activities. We’ll go deeper into this in our IBC edition.

## PART 3 – AN INTERVIEW WITH IDO SHNEIOR, CHIEF CUSTOMER OFFICER, CHARLTON

In our earlier Reports, we had the opportunity to give the floor to Hervé Lemaire from LeakID, our partner with our Eye on Piracy services. We also interviewed Romain Beekham from OVH, an ISP and compared counterfeit and illegal streaming with Julien Serres from Insiders. We now wish to give the floor to one of our Eye on Piracy customers to tell more about his views on illegal streaming as a content owner and how he sees ways to eradicate sources of piracy.

To you Ido!



### INTERNET INFRINGEMENT - FROM VISIBLE TO INVISIBLE

Criminal activities have always been clandestine in the physical world.

After all, if a criminal publicly announces fake or stolen goods on the street, it will be a matter of minutes before the police arrest him.

The reason for these activities to be hidden is that in the physical world a dealer of drugs, fake watches or fake CDs cannot open a store where people are walking around, without being exposed and identified on the registry records of the city, the mall, utility bills, electricity etc.

In today's Internet the same criminal can set up a website that is hosted in a country like Panama and get to a much wider audience and all that without Proof of Identity.

When the internet first became public we all preferred fast adoption of the technology at the expense of the rules and laws that protect us from crime in the physical world. This is how criminals obtained the ability to market and sell goods publicly and yet remain anonymous.

The unbearable simplicity in which it is possible to operate anonymously on legitimate Internet services is the root of the problem of the increase in piracy, both in terms of distribution and consumption.

The desire of Facebook, YouTube and others to enable potential users to create an account quickly and easily, comes at the expense of a good and effective identification process that provides the ability to pursue the owner or operator if a crime was committed on the account.

A person can open countless Facebook accounts without any personal identification and still get all the capabilities that come with it, like uploading videos, live streaming and more, without technical knowledge.

Where there is no obligation for identification – chaos reigns.

As we see it, the digital assets revolution (bitcoin, XRP etc.) is very similar to the Internet revolution, with one major difference.

Because it's in the money/currency space and not the information space like the internet, governments and regulators were more alert and quickly realized that rules of the game must be set before it's too late. So they began implementing a known physical world rule that solves the anonymity problem, **KYC (Know your customer)**.

It can already be seen that businesses that offer ownership of asset accounts for holding or trading digital assets are obligated to identify their users by requiring an **ID DOCUMENT** and **PROOF OF RESIDENCE**.

In some cases those businesses also ask users to upload a recent photo taken of the account holder, along with a hand-written note with the name of the business next to the user's face and include the current date. The owner of a Facebook account, website or YouTube page can commit a crime as damaging as an owner of an anonymous Bitcoin account can use it for tax evasion or financing terrorism.

Infringing content distribution can also produce money that will finance terrorism or be used for tax evasion.

The problem of anonymity is in the root of the internet space, and therefore the solution must be fundamental, from the ground up.

Finally I'll leave you with something to think about, imagine how difficult it will be to handle this kind of site: **<https://bit.tube/dashboard>**

A decentralized video platform site similar to YouTube that uses blockchain technology to store data in a worldwide Peer2Peer network.

#### **Their model is:**

Viewer agrees that while viewing content, the platform uses its computing power for mining cryptocurrencies

The content "owner" (thief) earns a percentage from those cryptocurrencies which were mined by uploading or streaming illegal content

We have to come to an understanding that ownership needs to come with "the Liability of identification."

**Thank you Ido for your thoughts!**



## CONCLUSION

It is now time to thank all our readers for having followed us, given their comments, expressed their interests, asked so many questions in the course of these Illegal Streaming Reports. We shall be back to all of you in September, with a new dedicated Report for IBC.

Tackling audiovisual piracy can only be a joint and global approach, recognizing as pre-requisites the two fundamentals below:

*Streaming is the favorite way of accessing and consuming content.*

*Even if most of the matches could be seen for free on local channels, the figures of illegal streaming definitively show that linear TV is less and less considered; viewing habits have changed once and for all.*

*The internet is making all content accessible from everywhere.*

The European Copyright Directive currently being revisited should take these two aspects as a "given" that they are irreversible. It is therefore the right time to:

Review the notion of copyright in depth, to clearly and jointly define online responsibilities for all stakeholders, from the right owners to the consumers, via the ISPs, the data centers, the Ad players, the market places, the payment and social platforms

To jointly define a responsible approach for each of these players and then revisit the overall rights' monetization process

This should be dealt with urgently as illegal streaming networks are growing, they all are very well organized, protected; they are wealthy and have a feeling of impunity. We should not ignore that they do not solely address illegal streaming but also fund other networks with the revenues originated from their illegal streaming services.

Creating awareness on the end to end chain within all these stakeholders and sharing it with public stakeholders is key, so that each player has a deep view on the overall landscape, and on the role that he can play and the responsible attitude expected from him.

Only a clear jointly-defined allocation of roles and responsibilities can maintain cohesion in the digital sphere.



## COPYRIGHT

The contents of this documentation are strictly confidential and the receiver is obliged to use them exclusively for his or her own purposes as defined in the contractual relationship. No part of Viaccess-Orca applications or this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without permission in writing from Viaccess S.A and/or Orca Interactive. The information in this document is subject to change without notice. Viaccess S.A nor Orca Interactive warrant that this document is error free. If you find any problems with this documentation or wish to make comments, please report them to Viaccess-Orca in writing at documentation@viaccess-orca.com.

## TRADEMARKS

Viaccess-Orca is a trademark of Viaccess S.A ® in France and/or other countries. All other product and company names mentioned herein are the trademarks of their respective owners.

Viaccess S.A and/or Orca Interactive may hold patents, patent applications, trademarks, copyrights or other intellectual property rights over the product described in this document. Unless expressly specified otherwise in a written license agreement, the delivery of this document does not imply the concession of any license over these patents, trademarks, copyrights or other intellectual property.

