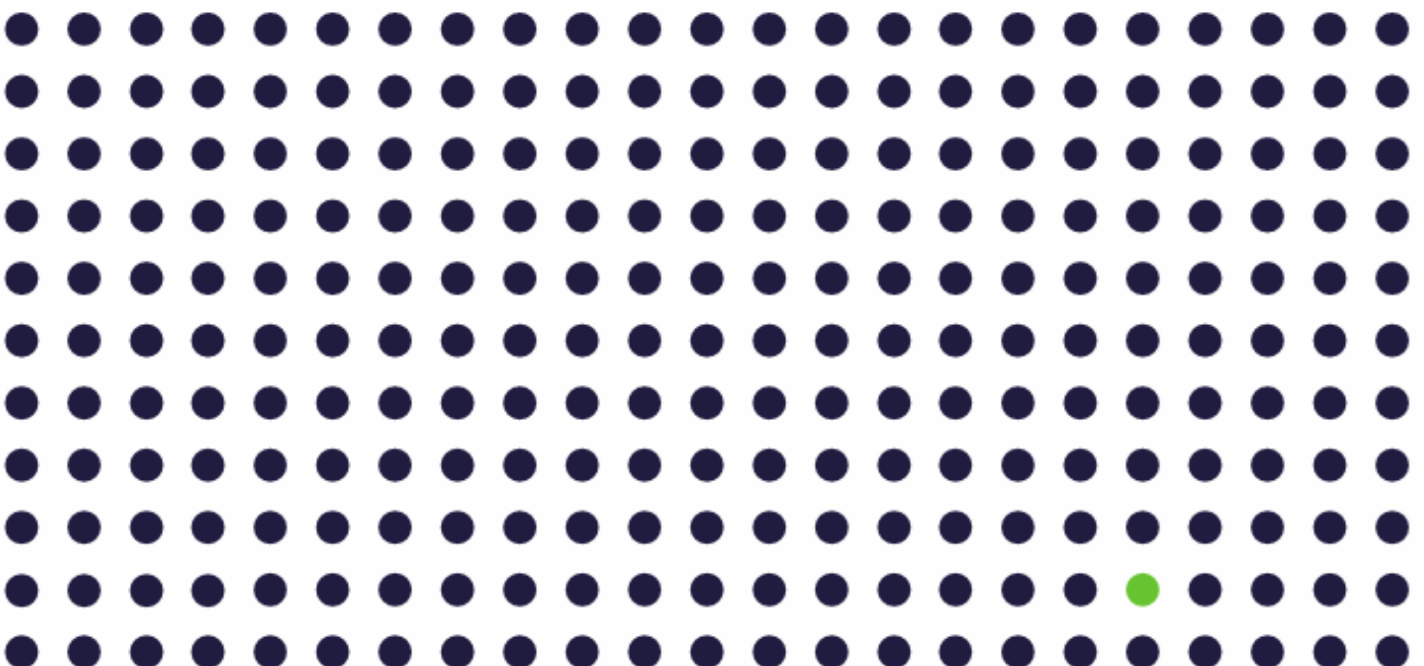


Site blocking efficacy in Portugal

September 2015 to October 2016

May 2017



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Executive summary

INCOPRO has compiled this report to assess the efficacy of site blocking in regime Portugal, with the administrative legal procedure now having been used for some time in the country - since November 2015. This report uses data up until October 2016.

This report also provides an overview of the current landscape for unauthorised websites that are used to obtain unauthorised film and television content in Portugal. The websites considered in this report for the purposes of examining the landscape of websites in Portugal are identified by INCOPRO's Infringement Index which is used to assess the extent to which each site either infringes copyright directly or facilitates infringement of copyright (whether knowingly or not), by providing the public with access to films and television programmes, without the licence or consent of the owners of the copyrights in those works. In this report, an unauthorised site is a website that does not have a licence from the copyright owner to make available or facilitate access to copyright film and television content and that does in fact make available and/or facilitate access to such copyright content to a significant extent.

Key findings

The findings in this report show that overall **the blocks have had a positive impact, reducing the usage in Portugal of the websites targeted by the blocking orders in Portugal by 69.7%.**

The key points from this report are therefore as follows:

- Site blocking in Portugal has resulted in an overall 69.7% drop in usage to the sites affected by the first 8 administrative blocking waves ordered in the country. This is consistent with the usage patterns previously identified in other countries where usage initially decreases by around 70%, gradually decreasing further over time.
- Evidence is found to suggest that alternate domain sites are being used by unauthorised sites in order to continue providing users access to infringing content. This trend of usage shifting to alternate sites does not equate to sites maintaining pre-block usage levels however, with most receiving only a fraction of previous traffic levels.
- The percentage of traffic to the blocked sites via proxies has increased since November 2015, when the blocking regime began. Usage of proxies has not itself increased in Portugal over this period however, the rise in the percentage of proxy usage is instead due to blocked site usage having decreased over this period.
- The graph below summarises the findings of this report and shows the change in usage for the top 250 unauthorised sites in Portugal over the recorded period of September 2015 to October 2016 as compared with a non-blocking global control group. The 65 blocked sites in the top 250 unauthorised sites in Portugal have decreased in usage by a total of 56.6% in Portugal and increased by 3.9% globally. This clearly illustrates that the blocks are having the desired effect having decreased usage of these sites quite significantly in the target region, with the global control group indicating that usage of the sites in Portugal would likely have increased if not subject to site blocking. Overall usage of the top 250 unauthorised sites has decreased by 9.3% in Portugal, yet it has increased by 30.8% for the global control.

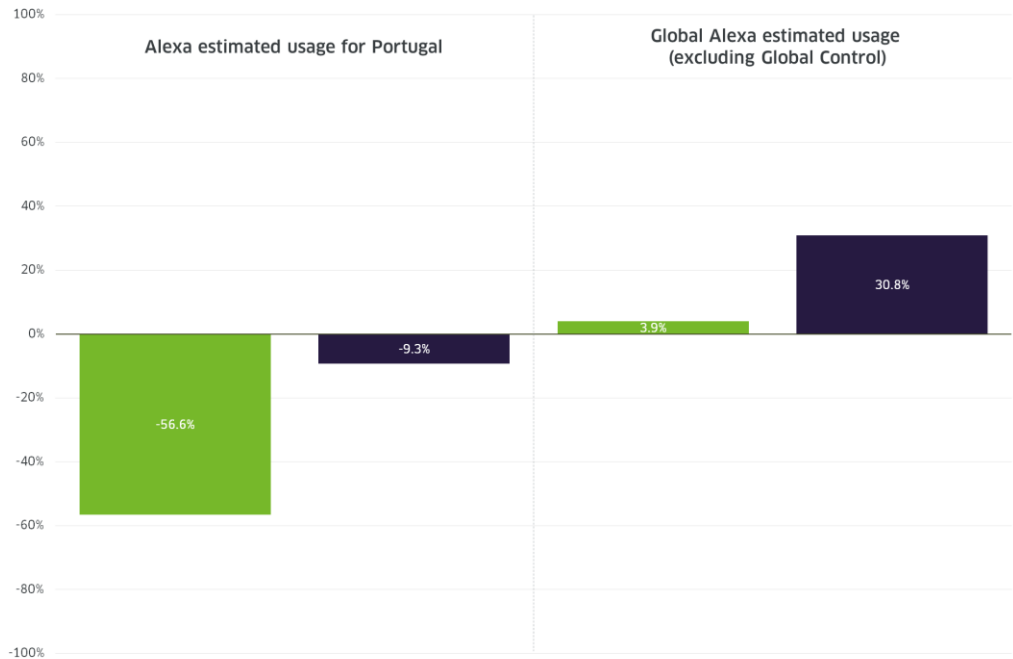


Change in Alexa estimated usage for Portugal top 250 unauthorised sites

Comparison of Portugal to Global Control

September 2015 vs October 2016

- Sites blocked in Portugal
- Top 250 unauthorised sites in Portugal



Introduction

Over 300 sites have now been blocked in Portugal¹, cementing the region's standing as having one of the highest number of sites blocked of all European countries. This report provides an assessment of the efficacy of site blocking in Portugal, as well as an overview of the current piracy landscape in the country, with specific focus on unauthorised sites that enable the public in Portugal to access film and television content.

Not all of the sites blocked under each application have been included in this report. This is because Portuguese Alexa data was not available for all sites. The report is limited to the first 8 IGAC applications, otherwise known as blocking waves, even though several further applications have been made. This is due to their recent implementation. Further research would be required in order to follow up on the impact of the subsequent blocks.

This report evaluates the efficacy of site blocking in terms of:

- The direct impact on relevant blocked sites in Portugal;
- The impact on unauthorised sites that are not blocked;
- The impact on the overall landscape for unauthorised sites in Portugal.

It considers the measures that may be taken by users to circumvent the blocks and aims to assist in understanding the longer-term effectiveness of site blocking as an enforcement tool.

Two key assessments are applied in this report:

1. Sites that have been blocked in Portugal are assessed by reference to the impact on usage for the particular site (taking into account relevant alternate domains and proxies where possible). The global usage of the blocked site, excluding Portugal usage, is analysed as the control where appropriate;
2. The impact of site blocking on the wider landscape of unauthorised sites in Portugal is also assessed.

The report is split into two sections with the first part providing an overview of the landscape of unauthorised sites in Portugal.

The second part examines the specific effect on the Portuguese Alexa estimated usage of the sites blocked in Portugal. Circumvention by users of these blocks is also considered in assessing their effectiveness by looking at proxy use. Conclusions are then drawn from the data about the efficacy of the site blocking implementation at this early stage.

The data collection and analysis methodology used for the preparation of this report is explained in detail in Appendix A.

¹Over the 8 blocking waves considered in this report which cover up until June 2016.



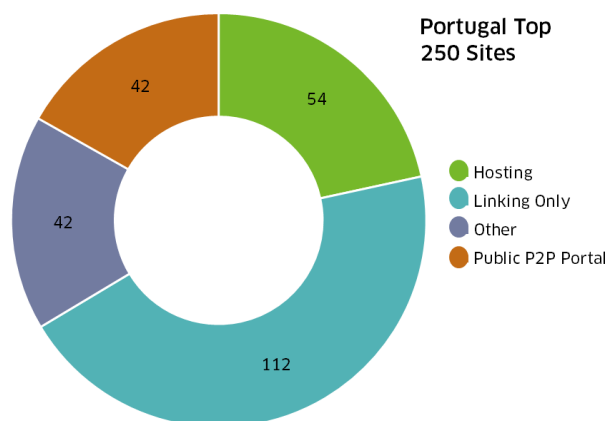
Analysis of Portugal Top 250 Unauthorised Sites

This section of the study provides an analysis of the top 250 unauthorised sites in Portugal as at the end of October 2016. INCOPRO currently tracks a total of 933 domains which have recorded usage in Portugal during the past 12 months. The domains analysed for the top 250 include all site categories (hosting, linking only, public p2p and those classified as other), with the exception of multi-site proxies, which are excluded from the main data set as it is currently not possible to attribute the usage of these sites to the specific industries of concern for this report, i.e. film and TV. Not all of the sites in the top 250 unauthorised sites necessarily infringe copyright. Some may facilitate or enable access to unauthorised content (for example, some of the hosting sites) but may not be directly liable for copyright infringement whether because of the other functions provided by the site or because the site in question benefits from safe harbour protection. Each site does however provide users with the ability to access unauthorised copyright content.

This section of the study provides an analysis of the Portugal top 250 unauthorised sites as at the end of October 2016, proceeding to examine the efficacy of site blocking in more detail. There is a total of 66 blocked sites in the Portugal top 250 unauthorised sites in October 2016. Those blocked sites which remain in the top 250 unauthorised sites still have sufficiently high enough usage to appear in the top site list, despite the blocks.

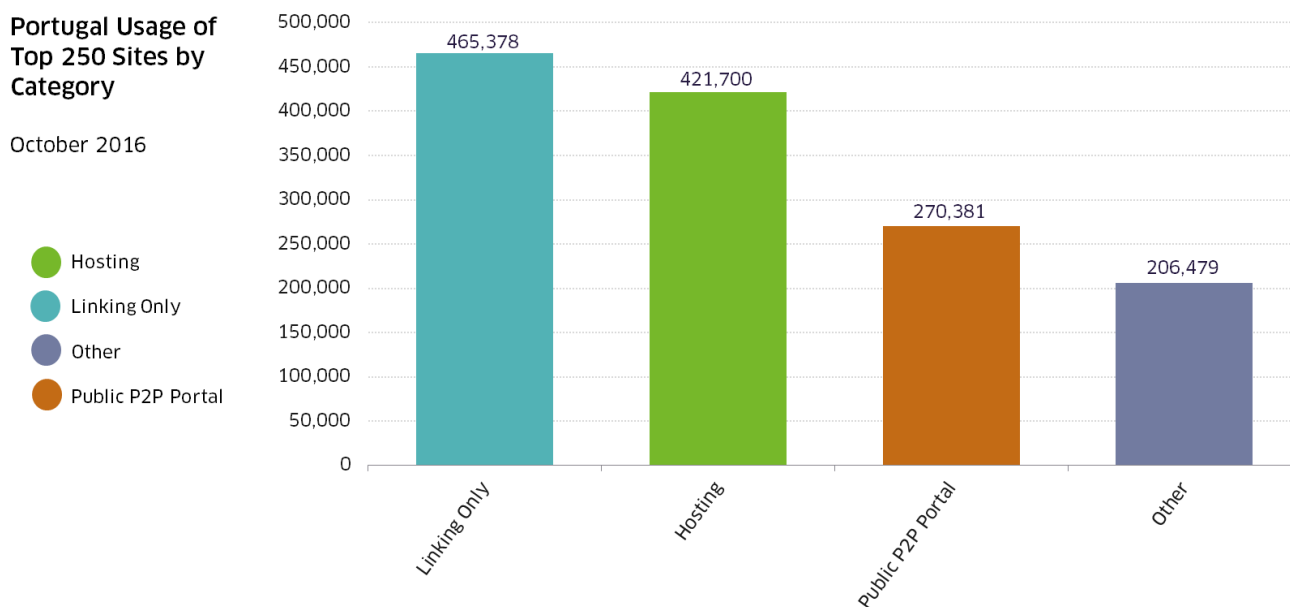
Each of the top 250 unauthorised sites has been allocated one of four main categories; Hosting, Linking Only, Public P2P Portal or Other where appropriate (explained further in Appendix A). Sites categorised as “other” are typically proxy sites (22/42) or live streaming sites (15/42).

The breakdown between the four categories is shown in the pie chart (right). The majority of sites in the Portugal top 250 unauthorised sites are classified as linking only (112). Usage of hosting and P2P sites is relatively similar, accounting for 54 and 42 sites respectively within the top 250 unauthorised Portuguese sites.



Of the 146 blocked sites considered in this report, 65 appear in the October 2016 top 250 unauthorised sites. 43 are categorised as linking only and the remaining 22 as public P2P portals. There are no sites categorised as Hosting blocked in Portugal at this current time.

In order to explore the role of each site category as a part of the overall piracy landscape the following graph displays October 2016 usage figures relating to each of the four categories of site present in the Portuguese top 250.



As the bars illustrate, usage of the top 250 sites is split as follows: linking only sites (34.1%), hosting sites (30.9%), public P2P portals (19.8%) and sites categorised as other (15.1%).

In contrast to the pie chart, the popularity of hosting sites is found to be widespread when considering usage figures. The 54 hosting sites proportionately account for only 21.6% of the total 250 sites; however, in terms of usage figures the sites amount to 421,700 (30.9%) of the total 1,363,937 usage. In comparison, the 112 linking only sites – amounting to 44.8% of the total count of 250 sites – account for 465,378 (34.1%) of total combined usage. There are 58 more linking sites than hosting sites, yet this has only equated to an extra 3.2% share in the overall usage proportion attributed to each category.

The reason for this could be that hosting sites are the category of site least affected by site blocking, allowing a small number of popular hosting sites to maintain high usage levels. As a result of this the most popular hosting sites have remained relatively unaffected by the blocking regime (for example, 3 out of the top 5 sites are hosting sites) whilst high usage linking sites have been hit by blocking orders. To illustrate this, the 10 higher usage hosting sites account for 72.4% of the sum of all 54 hosting sites in the top 250 (305,204 out of the 421,700 combined usage). By comparison, usage of the top 10 linking sites makes up a lower 42.2% of overall usage of the 112 sites (196,595 out of 465,378). These usage trends indicate that site blocking may have had the effect of breaking down the usage of the most popular linking sites, resulting in usage spreading to a higher number of lower usage sites. Therefore, site blocking could be seen to be forcing a more fragmented linking site landscape, where remaining usage is shared amongst a higher number of sites rather than pertaining to a lower number of the most popular sites – as demonstrated by the usage of hosting sites. The effects of site blocking upon Portuguese usage are explored in more depth in later sections of the report.

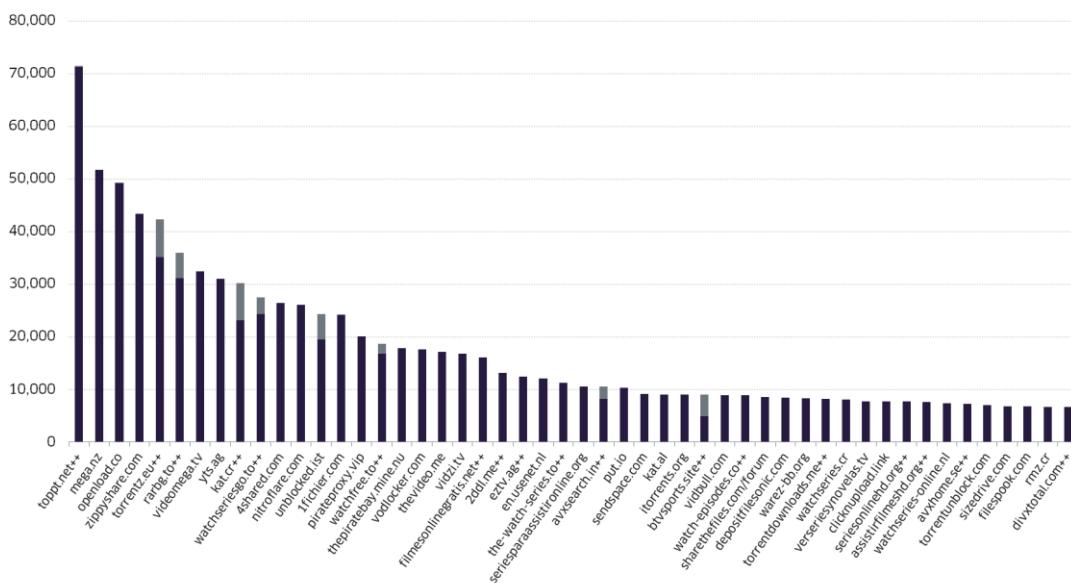
Top 50 unauthorised sites

The chart below shows the top 50 unauthorised sites in Portugal, including proxies used to circumvent site blocking, by Alexa estimated usage for October 2016 (purple bars). The grey parts of the bars that are split represent alternate domain usage recorded in October 2016. Any sites that are subject to blocking orders in Portugal are denoted by the two plus signs “++” next to their domain name on the charts.

Top 50 sites in Portugal by Alexa estimated usage

October 2016

- October 2016 Primary
- October 2016 Alternative
- ++ Blocked Site

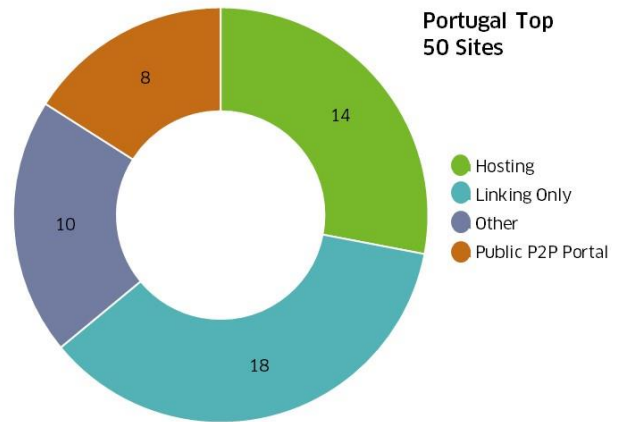


The top 3 unauthorised sites in Portugal at the end of October 2016 were toppt.net (a linking site), mega.nz (a hosting site) and openload.co (a hosting site).

As can be seen on the graph, the most popular site in the country is subject to blocking orders. There is a total of 18 sites in the top 50 that have blocking orders applied, with 5 of these appearing in the top 10 sites based upon October 2016 usage. This is an increase from the previous report in February, where 11 sites in the top 50 were subject to site blocks and 4 in the top 10 were blocked. The reason for this increase of blocked sites in the top 50 is that more sites have been blocked since the February 2016 report, rather than blocked sites having become more popular over time.

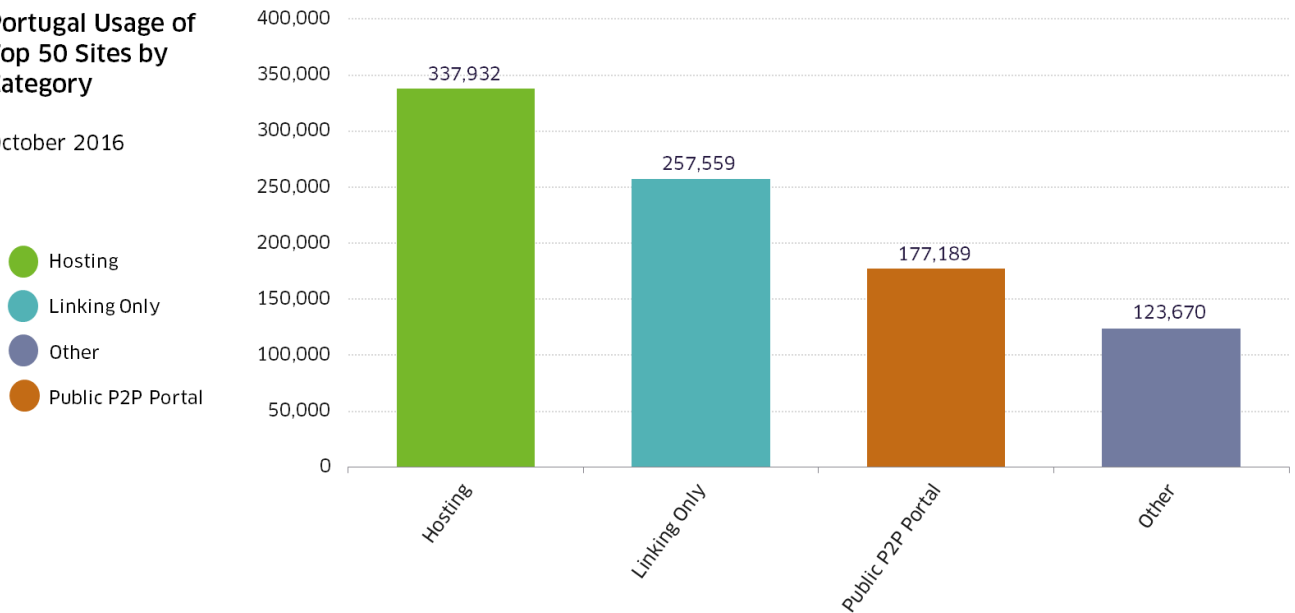
Each of the Portugal top 50 unauthorised sites has been allocated to one of the four main categories: ‘hosting’, ‘linking only’, ‘public P2P portal’ or ‘other’² where appropriate. The breakdown between the four categories is shown in the pie chart to the right, where it is displayed that the majority of sites in the Portugal top 50 unauthorised sites are linking only sites (18/50).

Of the top 50 unauthorised sites, 18 sites have been affected by the eight blocking waves considered in this report. The majority are linking only sites (12) and the others are public P2P portals (6).



Portugal Usage of Top 50 Sites by Category

October 2016



The above graph displays the estimated daily usage of the top 50 by category of site. The bars show that usage of the most popular sites in Portugal is spread as follows: hosting sites (37.7%), linking only sites (28.7%), public P2P portals (19.8%) and those sites classified as other (13.8%).

As with the top 250 usage split, hosting sites are shown to be the highest usage category of site being accessed in Portugal. It is important here to clarify that not all the of hosting sites can be deemed as unauthorised – it is not possible to determine the balance between legitimate and pirate usage occurring on hosting sites as files are shared ‘behind closed doors’. The popularity of hosting sites is even more evident when observed as a proportion of total top 50 usage. Whereas hosting sites accounted for 30.9% of the top 250, they are found to account for 37.7% of the usage of the top 50 sites – an additional 6.8%. As linking and P2P sites continue to be blocked in Portugal it is likely that hosting sites will be left to occupy an even more pivotal role in the distribution of infringing content.

² The sites categorised as “other” in the top 50 sites are mainly proxy sites (6/10).

Site blocking efficacy in Portugal

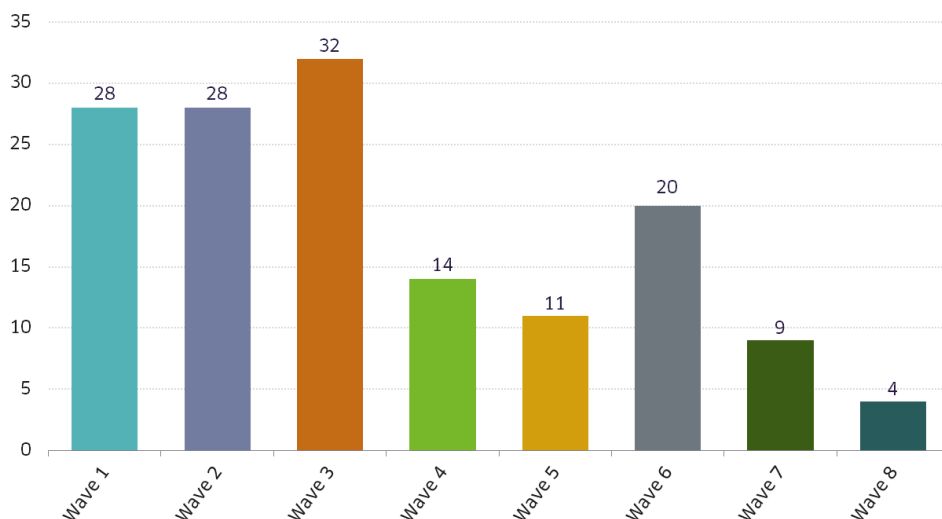
This section of the report provides data and analysis to evaluate the efficacy of ISP blocks in Portugal, taking into account the direct impact of the blocks on these sites, the potential migration of users to similar sites that are not blocked (including alternate domains) and finally the attempted circumvention of some users via proxies.

The first site blocked in Portugal (The Pirate Bay) was done so through a civil blocking procedure in February 2015, however since this initial order the country has moved towards an administrative procedure whereby the Ministry of Culture (IGAC) has been granted the power to assess claims for DNS blocks and to then order ISPs to block user access to these sites. The blocks which are considered in this report have been looked at in relation to when implementation of the blocks on the sites in Portugal as a result of a successful blocking application.

This report considers the impact of blocking upon 146 sites which have been blocked over the course of 8 blocking waves beginning in November 2015 (as displayed by the bars in the graph below).

Sites Blocked in Portugal

Wave 1 - Wave 8



A full list of the 8 main blocking waves and their estimated usage data following the implementation of the blocking can be found in Appendix C. This also includes separate rows to show any alternate domains and their usage data where appropriate from November 2015 onwards.

Direct effect of site blocking in Portugal

To understand the effect of site blocking on the targeted domains it is useful to start by looking at the direct impact on the sites themselves. The graphs below show the Alexa estimated usage of the blocked sites in relation to the blocking waves which have thus far been implemented. The full data set for these sites can be found in appendix C.

Where a particular site does not appear in the graph and no data is shown in the data table in Appendix C, this means there was no recorded usage by Alexa for that month. This does not always indicate zero usage of a site, as it could indicate extremely low usage - Alexa has a minimum threshold at which the levels of usage are too small to be recorded. Portugal has a relatively low population of Internet users, an estimated 6,930,762 users compared to the 60,273,385 in the UK,³ and so fluctuations in usage are more evident as a result of traffic to sites falling below the Alexa threshold more frequently than larger countries giving wider variations in the data.

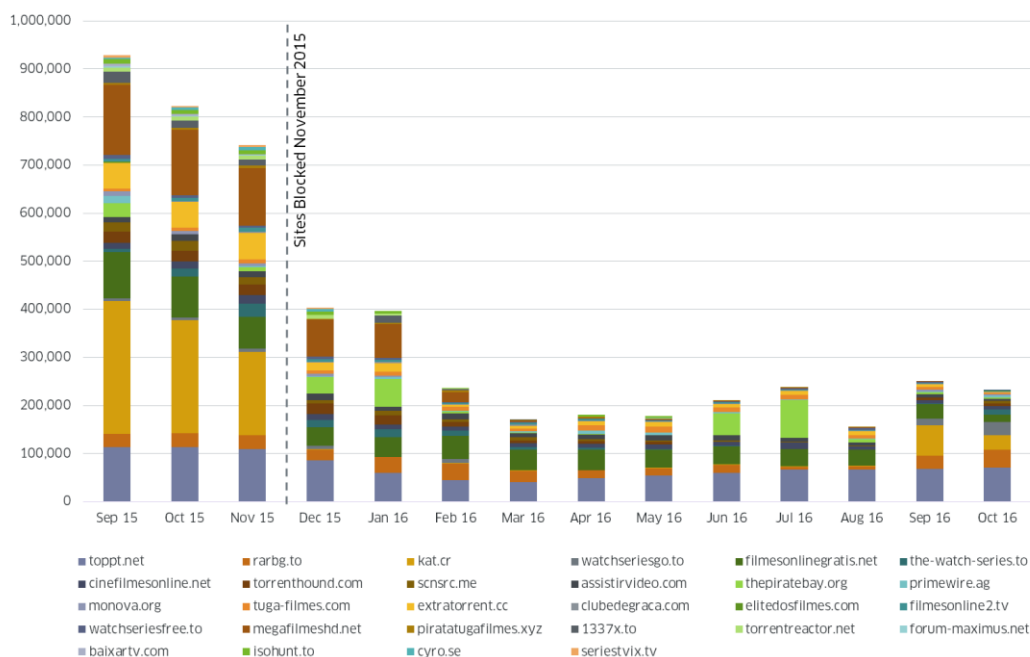
Overall, it is clear from the graphs below that there has been a positive impact of site blocking, with the total usage of the sites in each group having decreased since the implementation of the blocks (shown by the dotted, vertical line on each graph).

Wave 1: Sites blocked in November 2015

The stacked bar chart below shows the Alexa estimated usage in Portugal over the last 6 months for the 28 sites herein referred to as Wave 1. The sites in this group were subject to an expected ISP blocking implementation date of 10 November 2015.⁴

Sites Blocked in November 2015

Wave 1



The impact of blocking on the usage of this group of sites is clear post November 2015. This equates to a 67.9% reduction in usage in February (237,612) compared to November (741,362), which decreased to a further 76.9% in March (171,492). Since this immediate

³ <http://www.internetlivestats.com/internet-users-by-country/>

⁴ Usage data for The Pirate Bay has been included in the Wave 1 grouping, however the site was actually blocked in February 2015 using a civil procedure.

impact usage has remained at similarly low levels, with the expected monthly usage fluctuations. The total usage of the group of blocked sites was at its lowest on record in August 2016, where usage of that month represented a 79.1% reduction since the blocks were put in place (154,927 compared to 741,362). The most obvious driver for the decrease in usage for the group as a whole is from kat.cr, which was the highest usage site in the group by some margin, depicted by the gold section of the bars. The site has since gone offline following the arrest of the alleged owner and is therefore unlikely to return.

The total combined usage of sites included in Wave 1 amounts to 231,474 in October 2016, which represents a 68.8% (509,888) decrease in usage since the blocks were implemented. Significant reductions are evident for most of the sites when comparing usage recorded in October 2016 to that of November 2015. The most notable decreases in Wave 1 are that of extratorrent.cc (96.8%) and kat.cr (82.6%). All other sites have shown a decrease in usage by February, as compared to November – excluding two sites which have actually increased in usage.

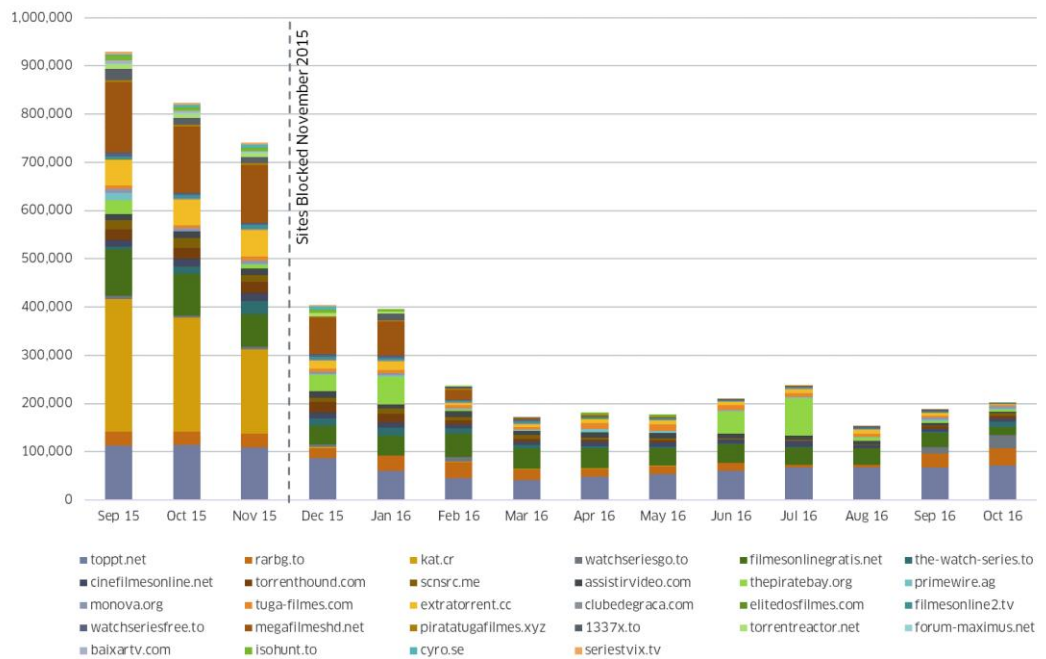
The two sites which have experienced a usage increase since being blocked in November 2015 are rarbg.to (by 7,316, or 25.5%) and watchseriesgo.to (by 21,338, or 349.2%). The increase in usage of rarbg.to is likely to be due in some way to the downfall of Kickass Torrents. Due to the site shutting down in July it is expected that users will have been displaced to other well-known BitTorrent sites. In the case of watchseriesgo.to, the increase in usage can be seen to be the result of Portuguese users taking to an alternate domain (watchseries.ac) since September 2016 which may not have been blocked in the country at that time.

Due to infringing functionality being removed from kat.cr in July 2016 a second graph has been created which excludes usage for the site from this point onwards. With the site exempted, usage of the group is seen to have decreased further, by 72.8% (540,068).

Sites Blocked in November 2015

Wave 1

Minus kat.cr post July 2016 usage

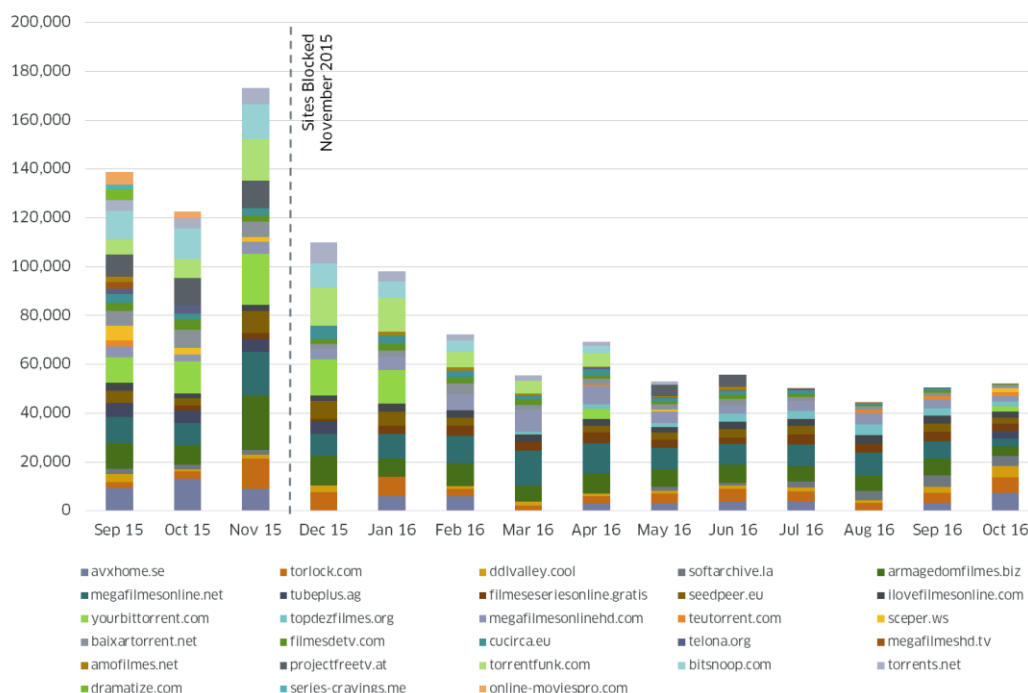


Wave 2: Sites blocked in November 2015

The stacked bar chart below shows the Alexa estimated usage in Portugal of the second group of 28 sites which were blocked in November 2015. The sites in Wave 2 have a predicted ISP blocking date of 19 November 2015.

Sites Blocked in November 2015

Wave 2



As for Wave 2, the total usage of sites in this group has also decreased since the implementation of the blocks. In total, there has been a 69.9% (121,033) drop in usage for the group as a whole. Usage of the group is seen to have remained below 60,000 over the past 6 months, which is significant considering that usage of the same sites totalled 173,227 in November 2015, before blocks were implemented. The most significant decrease in terms of usage figures relate to yourbittorrent.com, armagedomfilmes.biz⁵, torrentfunk.com, megafilmesonline.net, bitsnoop.com and projectfreetv.at; each of these sites has seen a usage decrease of over 10,000 since blocks were implemented, translating to percentage decreases of 80% to 100% for these sites.

It should be noted that five of the sites in Wave 2 have seen a usage increase since being blocked in November 2015, though these are minor in comparison to the decreases already mentioned. When compared to November 2015, combined usage of filmesonline.gratis, teutorrent.com, softarchive.la, topdezfilmes.org and ddlvalley.cool increased by 9,678. However, this is somewhat outweighed by the overall 130,711 decrease experienced by the other 23 sites within the second wave of blocking.

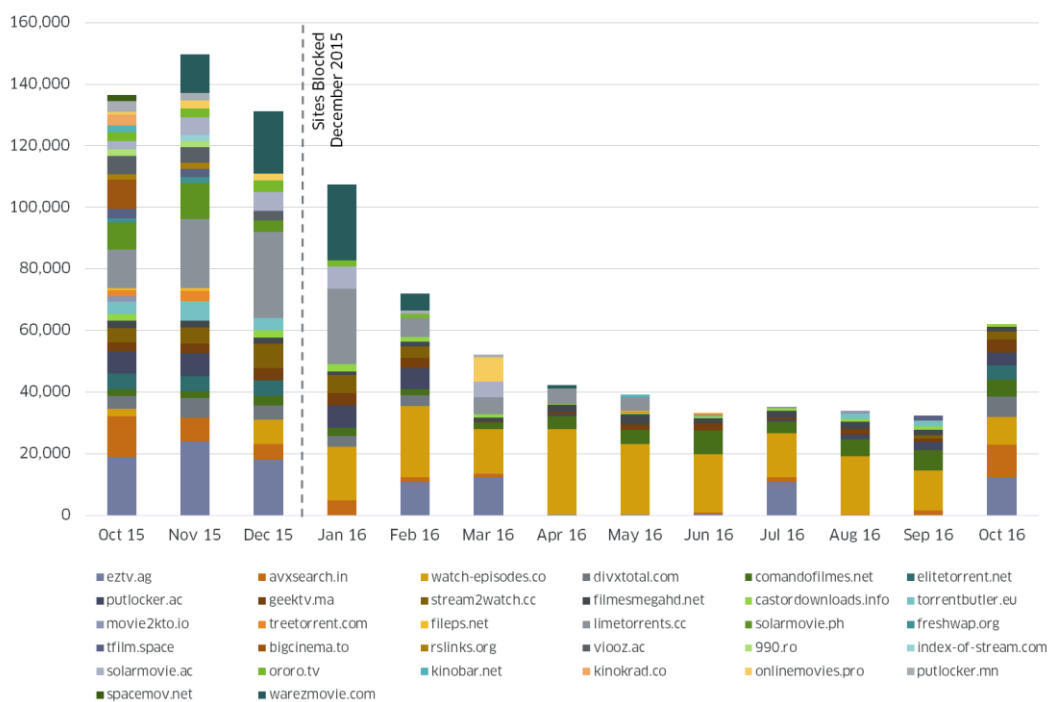
⁵ The significant armagedomfilmes.biz decrease is likely due to the domain having been seized, now a Police notice sits on the site.

Wave 3: Sites blocked in December 2015

The stacked bar chart below shows the Alexa estimated usage in Portugal of the 32 sites which were blocked in December 2015. The sites in Wave 3 have a predicted ISP blocking date of 16 December 2015.

Sites Blocked in December 2015

Wave 3



The aggregated usage of the sites included in Portugal’s third blocking wave demonstrates a more gradual decrease in usage during the months immediately following the block, though usage is still seen to reduce to lower levels. By April 2016, usage of the group had reduced by 67.7% (88,894), and was at its lowest on record in September 2016, where usage had reduced by 75.3% (98,807) compared to when blocking began in December 2015.

Usage of the group in October 2016 amounts to 62,151, a 52.6% decrease since blocking. It is not possible to ignore the usage spike seen during this month though, with combined usage up 91.5% (29,703) from the previous month. This increase of almost 30,000 is the result of increase in usage to 7 of the 32 sites when compared to September 2016. The biggest usage increases are as follows: eztv.ag (12,493), avxsearch.in (8,995), divxtotal.com (6,653), and elitetorrent.net (4,610). At this stage it is uncertain whether the increase is the result of typical site usage fluctuations, or whether it instead alludes to a distinct increase in the usage of these sites.

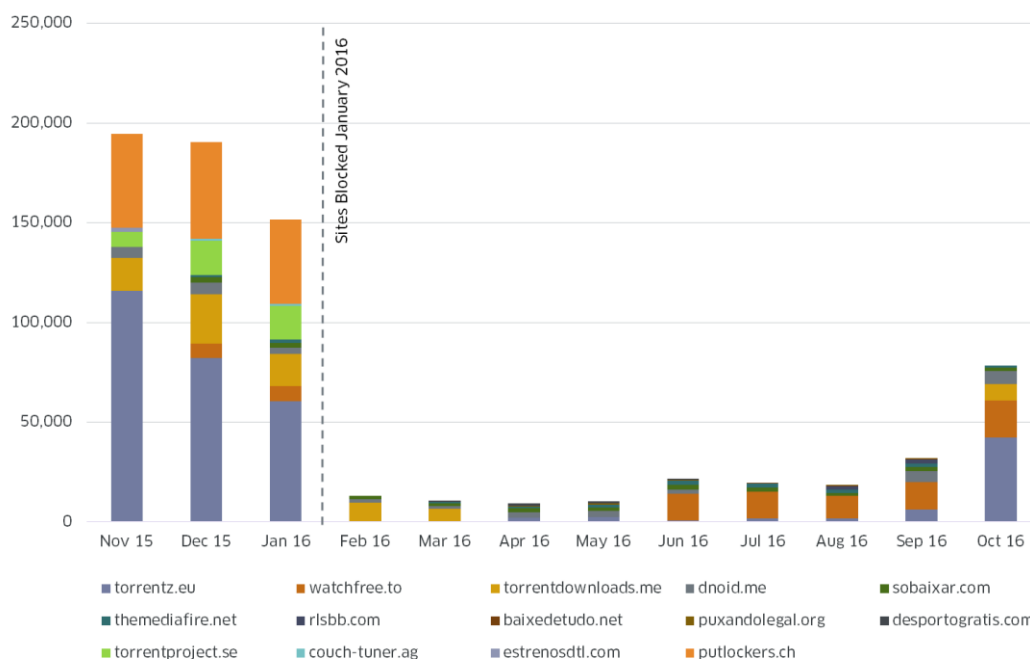
Overall, usage of the group has been considerably affected by the implementation of site blocks. Although there has been an increase in usage during October 2016, combined usage of the group is still down by 52.6% when compared to before the blocks were put in place. It is expected that the usage spike will settle down over the following months.

Wave 4: Sites blocked in January 2016

The stacked bar chart below shows the Alexa estimated usage in Portugal of 14 sites which were blocked in January 2016. The sites in Wave 4 have a predicted ISP blocking date of 18 January 2016.

Sites Blocked in January 2016

Wave 4



The immediate impact of site blocking on Wave 4 sites is the most significant of all blocking waves considered in this report. Following implementation of the blocks the combined usage of the group decreased by 138,476, from 151,497 in January 2016 to 13,021 in February 2016. Usage continued to remain at low levels (10,000-20,000) until September 2016, where there is a noticeable rise in usage compared to the previous months. Whilst this could be attributed to typical usage fluctuations, the following increase in October 2016 is substantial enough to warrant further investigation.

When compared to September 2016, usage of the group increased by 46,611 (146.2%). This considerable increase can be attributed to two sites: torrentz.eu (which increased by 36,100) and torrentdownloads.me (which increased by 8,210). The increase in usage of both these two sites belongs to the primary domain rather than newer alternative domains, for this reason the increase is likely to be due to factors affecting the larger piracy landscape at the time. For example, kat.cr – the world’s largest BitTorrent site – was shut down in July 2016, it is unlikely to be a coincidence that the usage of other BitTorrent sites in Portugal have seen an increase in the three months following the termination of this hugely popular public P2P site.

It must be noted however, that although the Torrentz usage increase is to the primary domain, this was the first time Portuguese usage was recorded for that domain for a number of months. Therefore, the 35,166 usage associated with this domain accounts for almost all of the usage increase for the site – and of the group as a whole (31,166/46,611) - during October 2016. This usage increase has had a domineering impact upon the commentary regarding this group of sites, however, further research finds that this usage increase does not actually translate to any rise in piracy levels. The site effectively shut down in August 2016 - shortly after kat.cr went offline - by

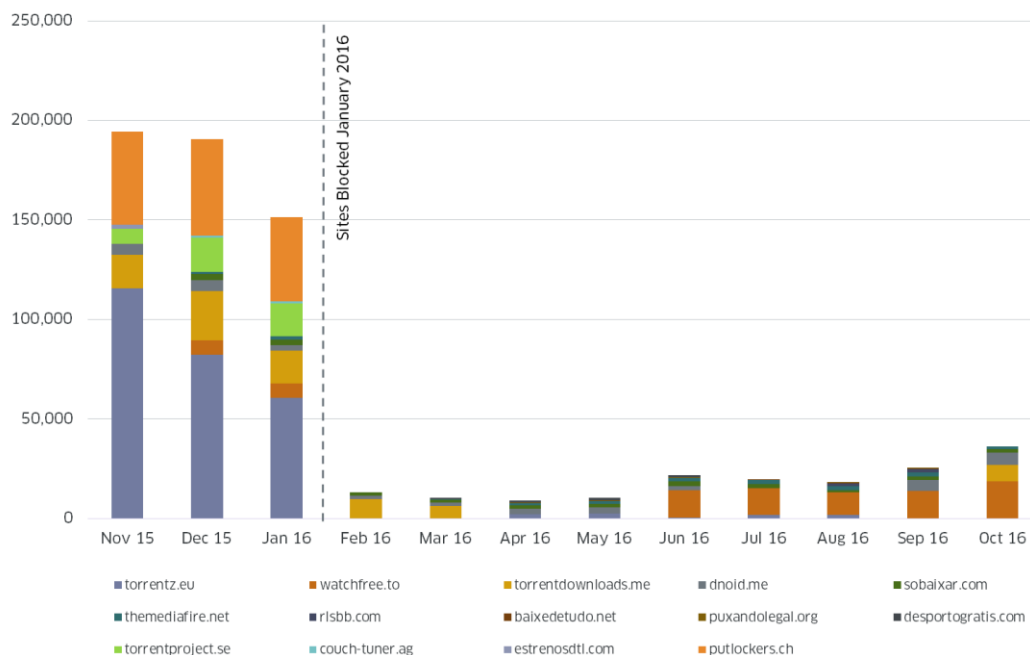
removing its search functionality.⁶ The home page still looks normal, but users searching for links to torrents on the site will no longer receive any search results.⁷

Considering the revelation that content infringement is no longer possible on torrentz.eu, it would be misleading to include the usage of the site after it ceased its pirate functionality. Therefore, in order to provide a truthful insight into the effectiveness of site blocks against infringing activity a second graph has been created which removes the usage of the site from the group after August 2016.

Sites Blocked in January 2016

Wave 4

Minus torrentz.eu post August 2016 usage



With the non-infringing torrentz.eu usage removed from the dataset the group’s usage is shown to be proceeding along anticipated lines. Here the combined usage of the group has decreased by 115,354 (76.1%) since the blocking order was implemented, from 151,497 in January 2016 to 36,143 in October 2016. For reasons discussed above this version of Wave 4 usage will be used throughout the rest of the report when referring to the group.⁸

⁶ <https://torrentfreak.com/torrentz-shuts-down-largest-torrent-meta-search-engine-says-farewell-160805/>

⁷ Upon searching users are not serviced with any results, but instead delivered a farewell message.

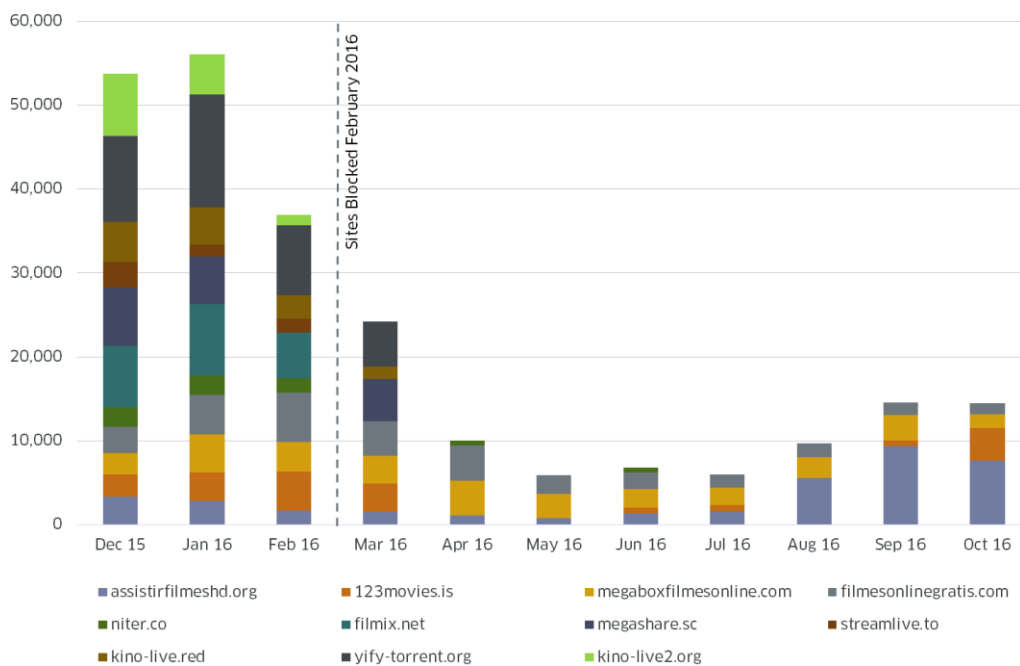
⁸ It is important to note that October 2016 usage of the site has been included in part one of the report, resulting in the site being distinguished as the fifth highest usage piracy site in the country - the high usage figures of the site do not translate in any possible way to content infringement however.

Wave 5: Sites blocked in February 2016

The stacked bar chart below shows the Alexa estimated usage in Portugal of 11 sites which were blocked in February 2016. The sites in Wave 5 have a predicted ISP blocking date of 16 February 2016.

Sites Blocked in February 2016

Wave 5

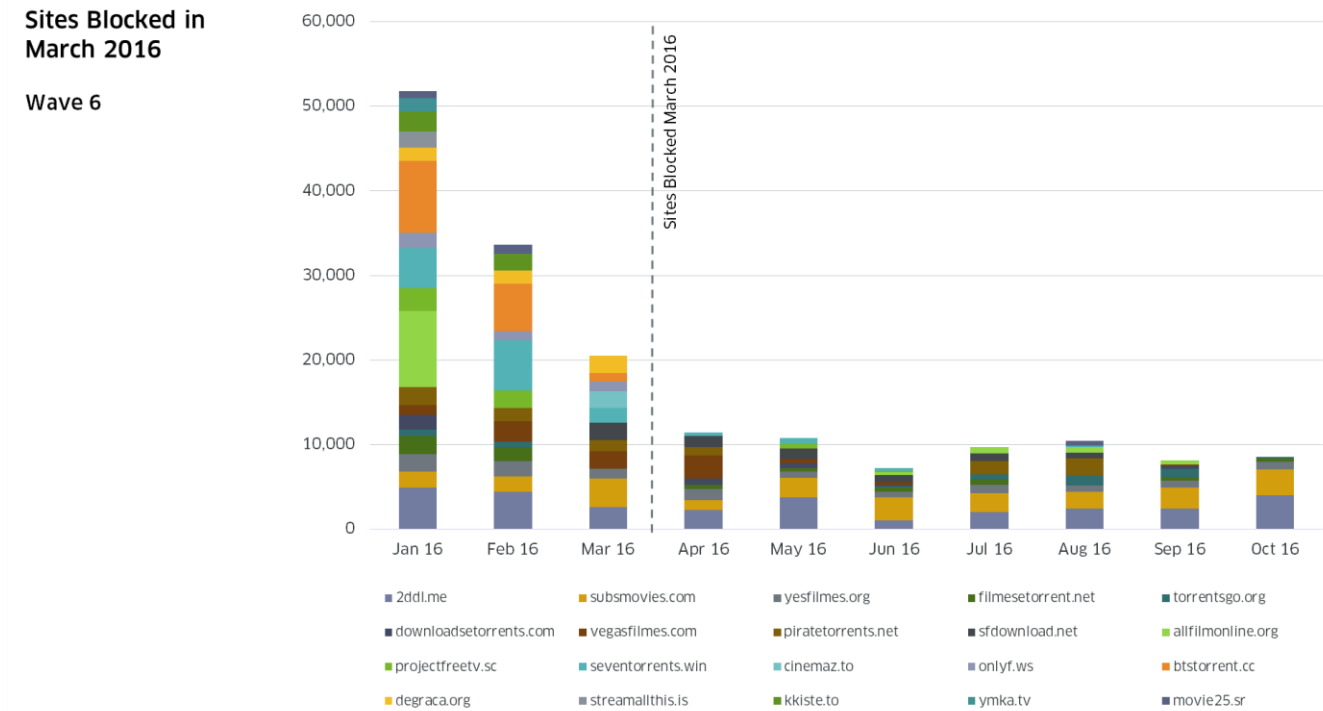


Sites included in Wave 5 of the countries blocking programme show a similar usage reaction to that established by the other blocking waves. When compared to pre-block usage, the group has reduced by 60.8% (22,460), from 36,946 in February 2016 to 14,486 in October 2016. Furthermore, only 4 of the 11 sites are found to still be recording Alexa usage in October 2016. This may not necessarily mean usage of the 7 other sites has entirely stopped, but it has reduced significantly to the point where Alexa no longer picks it up.

One factor to take into consideration when discussing effectiveness of the blocks upon the group is the usage increase of *assistirfilmeshd.org*, which has increased by 5,981 since the blocks were put in place. The graph shows that traffic began to pick up on the new domain (previously *verfilmesonlinehd.com*) during August 2016, as explored in the alternate domain section of this report. All other sites in the group are currently at lower usage levels than they were before the block took effect. It is expected that usage of *assistirfilmeshd.org* will not increase further and that usage of the group will shrink as a result – this will likely be to the levels seen throughout May to July 2016.

Wave 6: Sites blocked in March 2016

The stacked bar chart below shows the Alexa estimated usage in Portugal of 20 sites which were blocked in March 2016. The sites in Wave 6 have a predicted ISP blocking date of 16 March 2016.



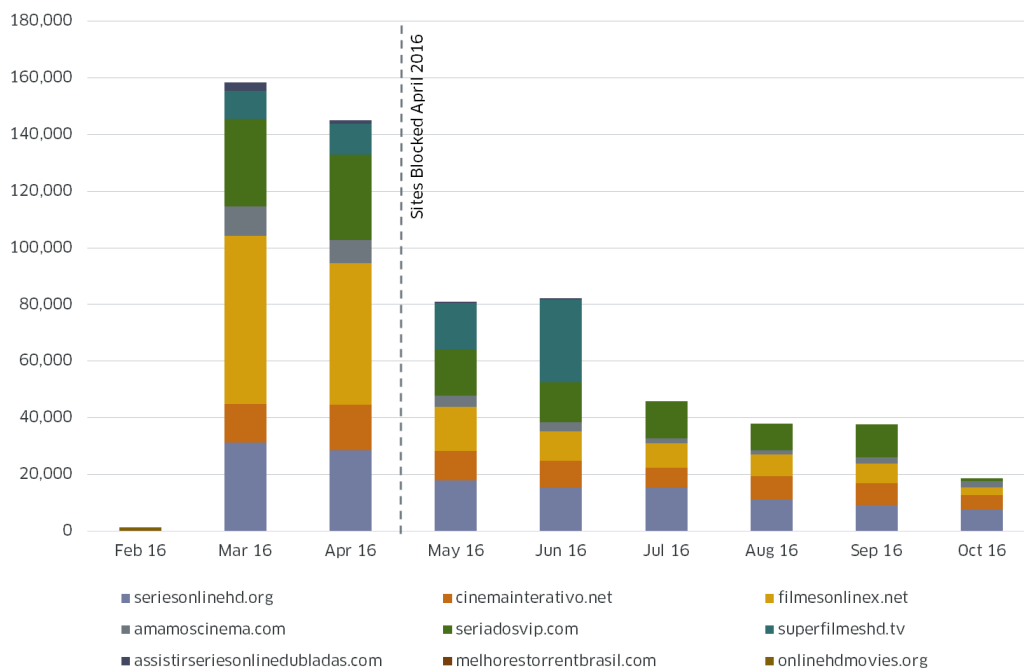
Usage of the Wave 6 sites was at its highest in January 2016, where 51,785 usage was recorded for the 20 sites during that month. Before blocking even began in March 2016, usage had already reduced by 60.3% (31,236) to 20,549. It is therefore due to this precursory drop in usage, which may or may not have occurred in anticipation of the imminent site blocks, that the blow of ISP blocking is somewhat softened. Immediately following the March 2016 blocks usage decreased by a still significant 44.3% (9,111), yet even more important to consider is that when compared to usage recorded in January 2016, usage in April 2016 had decreased by 77.9% (40,347).

Usage of the blocked sites in October 2016 totals 8,541, signifying an overall 58.4% (12,008) usage reduction since the blocks were implemented in March 2016, and an 83.5% (43,244) decline since January 2016. Blocking has clearly been highly effective upon this group of sites, and future usage levels are expected to remain at similarly low levels.

Wave 7: Sites blocked in April 2016

The stacked bar chart below shows the Alexa estimated usage of the 9 sites blocked in Portugal in April 2016. The sites in Wave 7 are expected to have been blocked by ISPs before 19 April 2016.

Sites Blocked in April 2016
Wave 7



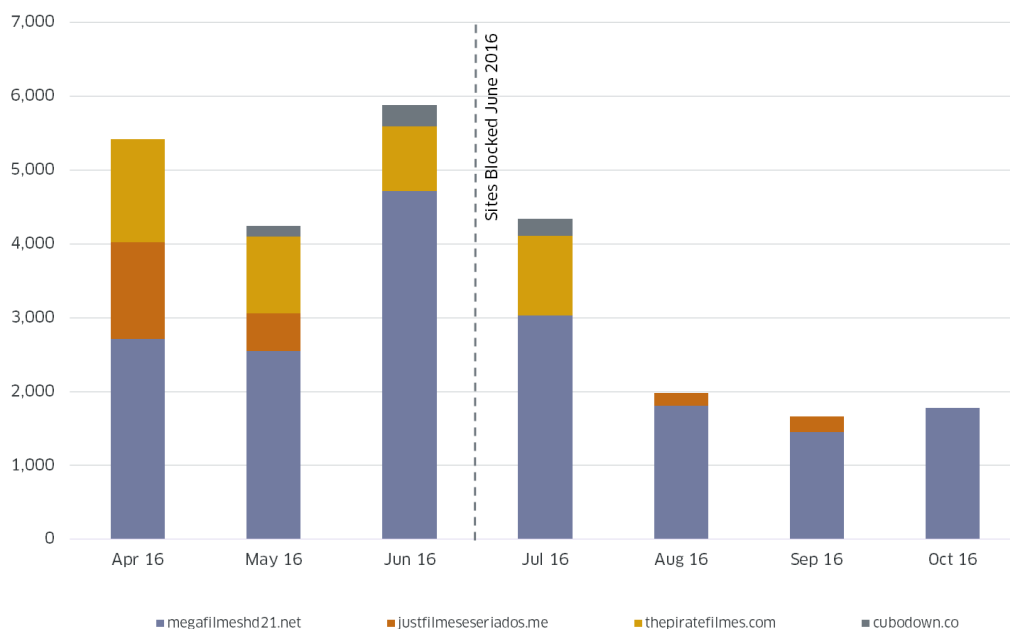
Usage of Wave 7 sites is at its lowest on record in October 2016, having reduced by 87.2% (126,475), from 144,998 in April 2016, to 18,524. All sites within the group have decreased in usage since the block was implemented, however three of these stand out as significant owing to their usage having decreased by over 20,000: filmesonline.net (by 47,467, or 94.9%), seriadosvip.com (by 29,194, or 96.7%) and seriesonlinehd.org (by 20,851, or 73%).

Wave 8: Sites blocked in June 2016

The stacked bar chart below shows the Alexa estimated usage for the 4 sites which were blocked in Portugal in June 2016. The sites included in Wave 8 are expected to have been affected by the implementation of ISP blocks by 21 June 2016.

Sites Blocked in June 2016

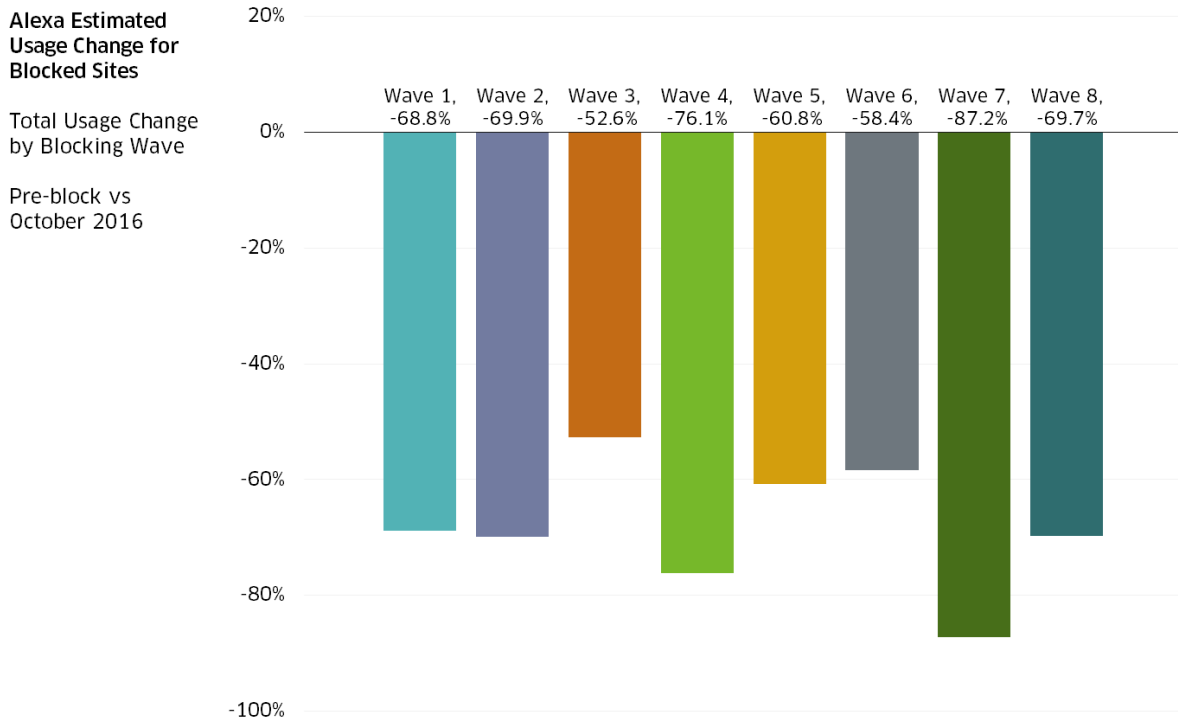
Wave 8



Usage of Wave 8 sites has decreased by 69.7% (4,104) since blocking began, from 5,884 in June 2016, to 1,780 in October 2016. As the bars show, there has been a significant reduction in usage to all sites within the group - megafilmeshd21.net being the only site recording Alexa usage in Portugal at the end of the tracked period. It is expected that usage of Wave 8 sites will remain at low levels for the foreseeable future, eventually reducing further towards the 75-80% total decrease typically seen after other instances of site blocking.

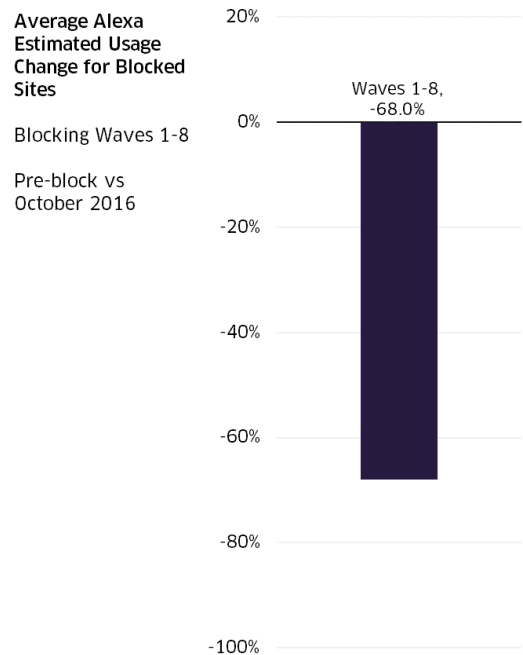
Efficacy of site blocking by wave comparison

The following graph displays the usage change for each blocking wave considered in this report by way of comparing the combined sum of all sites before blocking was put in place to October 2016 usage.



As the graph shows, all blocking waves have experienced a distinct decrease of Portuguese usage of the sites targeted in each group since blocking. The sum of pre-block usage for each wave combined amounts to 1,405,716, usage of these same sites totals only 425,292 in October 2016. Overall, usage of all blocked sites has reduced by 980,425 (69.7%) when compared to pre-block usage levels.

The average usage change for the 8 Waves is -68%. It must be taken into consideration that this figure has been influenced somewhat by the October 2016 usage spike seen in Wave 3 however; if this groups September 2016 usage were to be considered instead, then usage would have reduced by 75.3% – raising the average decrease to -70.8% overall.



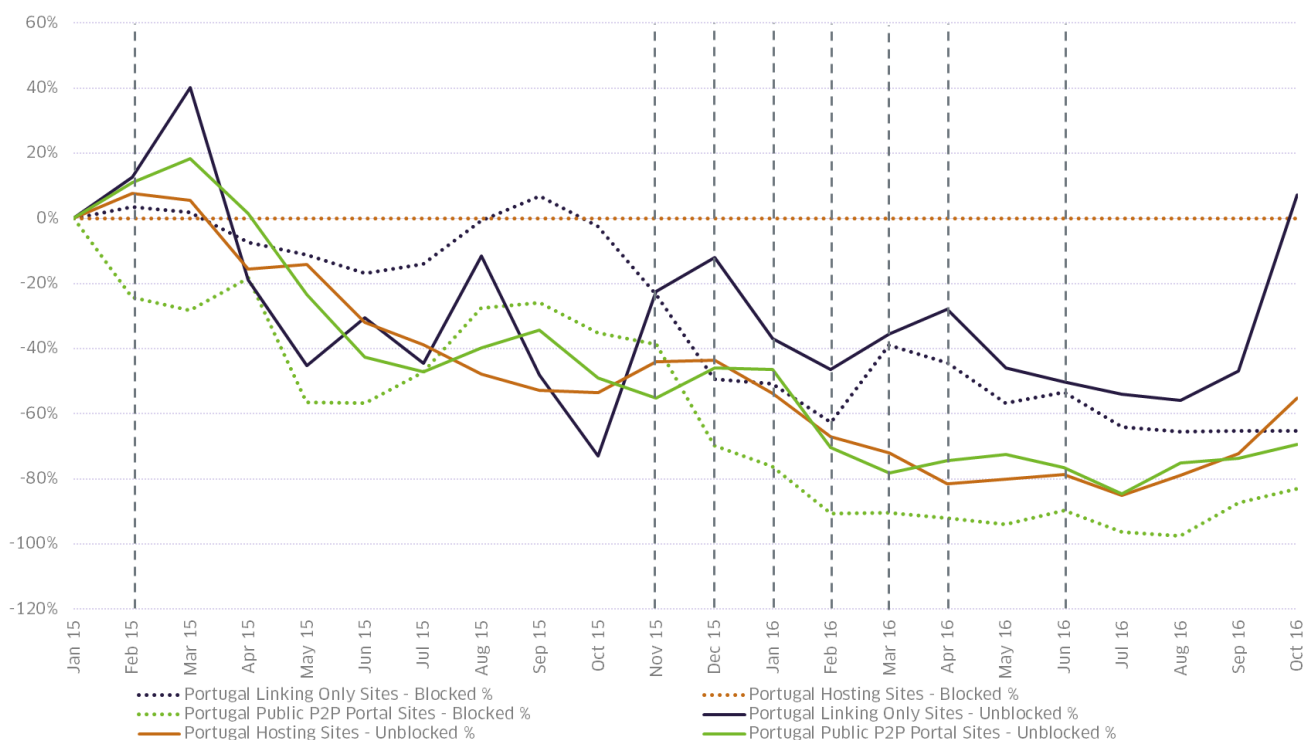
Effect of site blocking upon the wider piracy landscape

This section considers the overarching effects of blocking upon not just the sites targeted in blocking orders, but also all other sites which make up the piracy landscape of Portuguese users. In order to investigate this, all available usage for unauthorised sites in Portugal has been sorted from highest to lowest each month reaching back to January 2015. From this data, the top 250 sites from each month has been used to grant a picture of the piracy landscape specific to Portuguese usage as it changes over time.

Before the data used in this section is analysed, it is important to clarify that in the production of these graphs blocked sites (dotted line) were categorised as being blocked throughout the whole time period, rather than just from when blocking of the individual sites began. Visual trends, such as the peaks and troughs in the usage of sites categorised as being blocked, are therefore being driven by this categorisation of the data. For instance, where there is an increase in popularity of blocked sites it is because the sites have not actually been blocked yet at that point in time and when traffic drops it is due to an additional wave of site blocking taking effect from that point onwards.

The line graph below splits out the usage of the three main types of content sites which make up the Internet piracy landscape: linking only sites (purple), public P2P portal sites (green) and hosting sites (orange). As previously, the solid lines represent sites which have not been blocked in Portugal whilst dotted lines signify that the tracked usage is attributed to a site which has been blocked during the recorded period of this report.

Portugal Top 250 Infringing Sites - Historical Growth by Type - PT Alexa Figures



Portuguese usage demonstrates the immediate impact of the Pirate Bay block in February 2015. The effects of administrative site blocking can be seen through the decline of blocked site usage from November 2015 onwards when the programme began. Compared to pre-block usage recorded in January 2015, the usage of blocked sites within the country's top 250 unauthorised sites has decreased

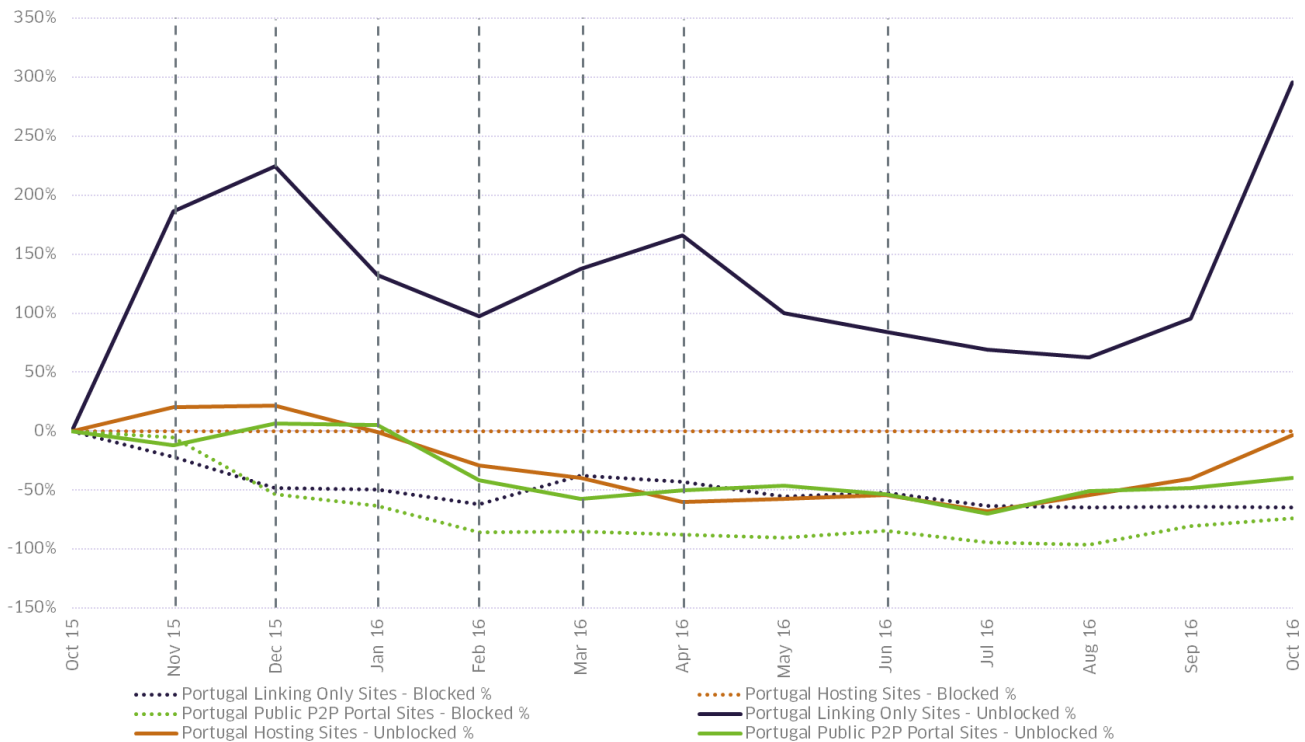
by 1,140,619 (76.2%). Compared to October 2015, just before the administrative blocking regime began, usage has reduced by 804,847 (69.3%). This is a significant change, reflected by the blocked site lines in the graph showing a distinctly visible reduction.

The unblocked sites also show a downward trend over time. Sites in the top 250 which have not been blocked in Portugal have decreased in usage by 1,869,254 (71%) since January 2015. A likely explanation for this is that Portugal has blocked such a high volume of sites in frequent, staggered waves that there has not yet been an opportunity for lesser known sites to step in and accumulate some of the usage attributed to the recently blocked sites. Another explanation for this could also be that the usage of hosting sites (i.e. the cyberlockers to which the blocked sites redirect) has decreased as a result of linking sites being blocked.

The different lines show that the usage of unblocked sites has been on a descent ever since the first instance of blocking in February 2015. In contrast to this, the blocked sites show a similar hit as a result of the first block, but shortly show signs of recovery and appear to be on the path to former usage levels until the administrative blocking waves began in October 2015 (once again, this includes all sites blocked in the country – even if they were not actually blocked at the time). Overall, usage of the top 250 sites has decreased by 3,009,873 (72.9%) since January 2015. This is a significant usage change, and it suggests that thus far the right sites are being blocked in the country in order to have overarching effects upon total piracy levels.

The lines display a turbulent period for users of pirate sites, which progresses in line with the administrative blocking regime beginning. As it stands, it is the linking only sites which are the biggest issue in the country towards the end of the year, especially considering the usage spike seen in October 2016. When compared to January 2015, usage of linking sites has increased by 7.2% (19,089) – a 54.2% increase from September 2016, the previous month. In more detail, when compared to the previous month the 112 linking sites in the top 250 have collectively increased by 75,850, this is the result of both an increase of 153,747 and a decrease of 77,897. In order to explore this in more detail, the graph has been recalculated below using October 2015 as the starting point.

Portugal Top 250 Infringing Sites - Historical Growth by Type - PT Alexa Figures

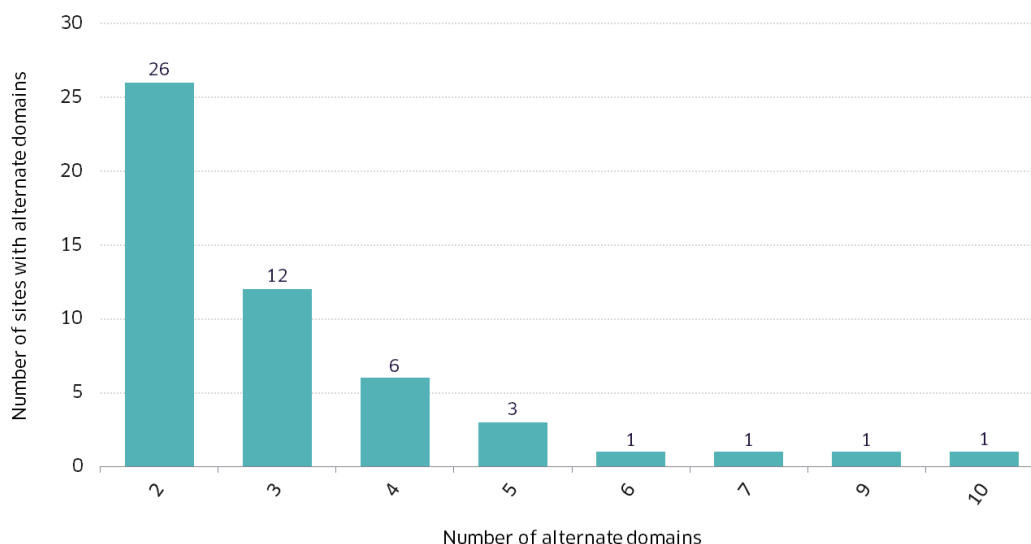


With the data displayed in this way there is an evident rise in the usage of linking sites since administrative blocking began. However, this increase is not solely indicative of a trend in usage and is largely the result of low unblocked linking usage in October 2015, which is at its lowest on record at 71,488. Therefore, even though the October 2016 usage is the highest on record (having increased by 211,311, or 295.6% since October 2015), it does fall in line with usage levels seen throughout the year and more particularly at the beginning of 2015.

Usage of alternate domains in Portugal after blocking

This section will look briefly at the potential movement of usage to alternate domains after blocking. Of the 146 blocked sites in the eight blocking waves, 51 have at least one alternate domain which recorded usage at some point since November 2015. The following graph highlights the point that where a blocked site has an alternate domain they usually only have 2-3 associated domains altogether.

Blocked sites with multiple domains



The 51 sites with alternate URLs total to 159 domains. As the graph shows, sites with a low number of domains are much more common than those with a high number of domains – only 7 of the 51 sites were found to have above 4 domains. Blocked sites with only two to three associated domains cover a majority of the makeup of alternate domain sites (88/159). Sites with four or more associated domains are found to account for 71 out of the total 159 alternate domain sites.

The adjacent table shows the 7 sites with 5 or more domains which have been found to receive traffic from Portugal, sorted by their number of active domains on record (based upon Portuguese usage only).

Main Domain	Name	Count	Blocked
2ddl.me	Twodd1	10	Wave 6
watch-episodes.co	WatchEpisodes	9	Wave 3
the-watch-series.to	Watch Series (Was BTVGuide)	7	Wave 1
btvsports.site	BTVSports	6	Wave 6
thepiratebay.org	The Pirate Bay	5	Wave 1
extratorrent.cc	Extratorrent	5	Wave 1
seventorrents.win	SevenTorrents	5	Wave 6

For Wave 1, there is some evidence of a shift in usage to alternate sites after the expected implementation of the blocks in November, as seen for sites such as Extratorrent and Watch Series shown below (the full tables of data can be found in *Appendix C: Sites blocked in Portugal*, listing each site with any related alternate domains underneath and highlighting the approximate date of implementation of the blocks in each group):

Domain	Name	Category	Nov 15	Dec 15	Jan 16	Feb 16	Mar 16	Apr 16	May 16	Jun 16	Jul 16	Aug 16	Sep 16	Oct 16
extratorrent.cc	Extratorrent	Public P2P Portal	45,548	-	-	-	-	-	-	-	-	-	-	-
etmirror.com	Extratorrent	Public P2P Portal	7,676	14,130	17,652	4,342	5,511	2,540	3,804	1,553	1,126	1,706	1,379	228
extratorrent.date	Extratorrent	Public P2P Portal	-	-	-	-	-	5,814	4,657	4,869	7,411	6,658	4,436	1,536
etproxy.com	Extratorrent	Public P2P Portal	-	-	-	-	-	-	490	-	-	-	-	-
extratorrentlive.com	Extratorrent	Public P2P Portal	-	-	-	-	-	-	-	345	-	368	-	-
thewatchseries.to	Watch Series	Linking Only	19,092	-	-	-	-	-	-	-	-	-	-	-
watch-series.ag	Watch Series	Linking Only	4,295	6,700	7,399	3,196	-	-	-	-	-	-	-	-
watchseries.ph	Watch Series	Linking Only	4,359	7,882	9,565	8,129	6,167	4,354	1,883	921	-	-	-	-
watchseries.to	Watch Series	Linking Only	-	-	-	-	-	-	318	389	610	-	-	-
watch-series.to	Watch Series	Linking Only	-	-	-	-	-	-	-	-	230	-	-	8,736
watch-series-tv.to	Watch Series	Linking Only	-	-	-	-	-	-	-	-	-	-	1,768	2,675
projectfree-tv.to	Watch Series	Linking Only	-	-	-	-	-	-	-	-	-	-	1,335	2,135
piratutugafilmes.com	PiratutugaFilmes	Linking Only	3,534	-	-	-	-	-	-	-	-	-	-	-
piratutuga.xyz	PiratutugaFilmes	Linking Only	958	2,037	3,136	3,359	-	-	-	-	-	-	-	-
piratutugafilmes.xyz	PiratutugaFilmes	Linking Only	-	-	-	-	1,131	2,447	2,098	904	821	772	-	-
watchseries.ag	WatchSeries.It	Linking Only	3,987	5,607	3,354	-	-	-	-	-	-	-	-	-
watchtseries.se	WatchSeries.It	Linking Only	-	-	1,560	1,382	2,109	1,097	541	1,139	897	1,194	573	-
watchtseries.vc	WatchSeries.It	Linking Only	-	-	-	-	-	-	528	1,242	1,365	1,432	1,505	423
watchseriesfree.to	WatchSeries.It	Linking Only	-	-	-	-	-	-	-	-	-	1,234	1,409	-

The five Extratorrent domains which received Portuguese usage at some point during the 12 month period between November 2015 and October 2016 demonstrate a gradual migration of usage as time passes. This process is also exhibited by the other Wave 1 sites in the above table, and is particularly evident for the two separate Watch Series entities. For each of these sites there is a clear transition in usage from the higher usage site at the time of blocking towards newer alternate domains – new at least in terms of previously not having recorded Portuguese usage. These alternate domains do not yet appear to have picked any semblance of the usage seen previously for the main sites however, usage for this group of sites records only a fraction of pre-block usage. As a full year has now passed since the blocks were ordered it is unlikely that alternate domains will be an issue in the future for these sites.

Generally, for the rest of the sites, the data does not show evidence of an obvious change in usage to the alternate domains and it appears that the blocks of the main sites are potentially having a knock-on impact on usage of the alternate sites, most likely causing users to go to other sites. Kickass is a good example to illustrate this; it was clearly the main driver for the large decrease in Wave 1 usage, but as the table below shows, the alternate (kickass.to and kat.ph) appears to have only picked up a very small amount of usage after the primary site has been blocked.

Domain	Name	Category	Nov 15	Dec 15	Jan 16	Feb 16	Mar 16	Apr 16	May 16	Jun 16	Jul 16	Aug 16	Sep 16	Oct 16
kat.cr	Kickass Torrents	Public P2P Portal	172,287	-	-	-	-	-	-	-	-	-	60,848	23,134
kickass.to	Kickass Torrents	Public P2P Portal	-	-	-	-	-	-	-	-	-	-	-	4,001
kat.ph	Kickass Torrents	Public P2P Portal	1,661	1,661	-	1,246	1,229	982	1,063	1,030	1,005	996	2,604	3,045

Wave 2 differs from that of Wave 1 as usage has actually increased on alternate domains for a few sites - to levels higher than that of the main site before blocking occurred.

Domain	Name	Category	Nov 15	Dec 15	Jan 16	Feb 16	Mar 16	Apr 16	May 16	Jun 16	Jul 16	Aug 16	Sep 16	Oct 16
sanet.me	SoftArchive	Linking Only	1,869	-	-	-	-	-	1,074	-	-	-	-	-
softarchive.la	SoftArchive	Linking Only	-	-	-	-	-	-	557	965	2,707	4,067	4,690	3,940
toptorrent.org	TopTorrent	Public P2P Portal	-	-	-	-	-	481	-	-	-	-	-	-
teutorrent.com	TopTorrent	Public P2P Portal	-	-	-	-	-	-	-	-	-	1,510	1,433	1,779
supercineonline.com	FilmeseSeriesOnline	Linking Only	2,315	-	-	-	-	-	-	-	-	-	-	-
supercineonline.tv	FilmeseSeriesOnline	Linking Only	-	876	3,180	4,253	3,519	4,298	3,009	2,566	3,958	3,799	3,694	3,011

The general picture is similar to that of Wave 1 sites, though as the above three sites display, there are instances of alternate domains accommodating previous usage, and even surpassing previous usage levels. It must be noted that in the case of TopTorrent usage has

not increased when compared to September 2015 usage (2,324). Overall, although there have been usage increases to two of the sites via alternate domains, this amounts to only a very minor shift in usage in the grand scheme of Portuguese piracy.

Wave 3 sites demonstrate much the same pattern as seen in the November 2015 groups; usage has shifted to alternate domains, though this only amounts to a minor proportion of previous total usage.

Domain	Name	Category	Nov 15	Dec 15	Jan 16	Feb 16	Mar 16	Apr 16	May 16	Jun 16	Jul 16	Aug 16	Sep 16	Oct 16
watchepisodes.com	WatchEpisodes	Linking Only	-	8,041	14,820	14,753	-	-	-	-	-	-	-	-
watchepisodes1.com	WatchEpisodes	Linking Only	-	-	-	-	11,680	14,753	-	-	-	-	-	-
watchepisodes1.tv	WatchEpisodes	Linking Only	-	-	-	-	2,909	10,854	11,804	-	-	-	-	-
watch-episodes.tv	WatchEpisodes	Linking Only	-	-	-	-	-	2,042	9,882	12,363	-	-	-	-
watchepisodes.to	WatchEpisodes	Linking Only	-	-	-	-	-	-	1,254	6,555	12,458	12,244	-	-
watch-episodes.com	WatchEpisodes	Linking Only	-	-	-	-	-	-	-	-	1,908	6,355	8,594	-
watchepisodes1.to	WatchEpisodes	Linking Only	-	-	-	-	-	-	-	-	-	225	3,419	4,997
watchepisodes1.net	WatchEpisodes	Linking Only	-	-	-	-	-	-	-	-	-	-	993	1,569
watchepisodes.co	WatchEpisodes	Linking Only	-	-	-	-	-	-	-	-	-	-	-	2,372

The usage of Watch Episodes and its associated domains provides a clear example of the lengths sites go to in order to maintain traffic levels. It is not possible to determine the actual cause of the domain switches seen in the above table, though site blocking (including actions in countries other than Portugal) or other such intervention is usually the instigator of these evasion tactics. Over the course of a year there have been 9 domains which record usage for the site from users in Portugal. The usage of these sites display a clear migration of users over time to the different domains.

The VerFilmesOnline example shown below (from Wave 5) shows how switching domains has enabled the site to flourish, it is not known whether the switch was made in answer to site being blocked in Portugal. However, due to it being a Portuguese language site it is likely that anti-piracy efforts in either Portugal or Brazil (countries which both have site blocking procedures in place) are the reason for the introduction of an alternate domain. Usage of the verfilmesonlinehd.com recorded 3,340 at its highest before being blocked (during December 2015), this usage has since been surpassed from August 16 onwards by the alternate assistirfilmeshd.org domain.

Domain	Name	Category	Nov 15	Dec 15	Jan 16	Feb 16	Mar 16	Apr 16	May 16	Jun 16	Jul 16	Aug 16	Sep 16	Oct 16
verfilmesonlinehd.com	VerFilmesOnlineHD	Linking Only	-	3,340	2,841	1,689	1,541	1,092	773	1,143	909	-	-	-
assistirfilmeshd.org	VerFilmesOnlineHD	Linking Only	-	-	-	-	-	-	-	181	676	5,537	9,333	7,667

Wave 6 includes Twoddl, the blocked site which was found to have the highest number of alternate domains (10, as shown below).

Domain	Name	Category	Nov 15	Dec 15	Jan 16	Feb 16	Mar 16	Apr 16	May 16	Jun 16	Jul 16	Aug 16	Sep 16	Oct 16
2ddl.net	Twoddl	Linking Only	1,648	4,120	4,934	3,290	-	-	-	-	-	-	366	1,927
2ddl.download	Twoddl	Linking Only	2,841	-	-	-	-	-	-	-	-	-	-	-
2ddl.co	Twoddl	Linking Only	-	-	-	1,115	1,735	-	-	-	-	-	-	-
twoddl.org	Twoddl	Linking Only	-	-	-	-	857	1,814	1,487	-	-	-	-	-
2ddl.cc	Twoddl	Linking Only	-	-	-	-	-	431	1,679	2,367	-	-	-	-
2ddl.ag	Twoddl	Linking Only	-	-	-	-	-	-	230	1,034	2,006	2,468	2,419	4,001
twoddl.eu	Twoddl	Linking Only	-	-	-	-	-	-	382	569	599	-	-	963
2ddl.link	Twoddl	Linking Only	-	-	-	-	-	-	-	254	-	-	-	-
2ddl.online	Twoddl	Linking Only	-	-	-	-	-	-	-	-	-	678	1,176	1,360
twoddl.link	Twoddl	Linking Only	-	-	-	-	-	-	-	-	-	-	916	4,926

Usage of the associated domains is significantly higher in October 2016, 13,177 compared to its highest before blocking which was 4,934 in January 2016. It is important to mention however, that at the time of writing (November 2016) all domains listed in the table above redirect to the same domain – twoddl.tv. Due to this, it is likely that similar circumstances may have affected the usage recorded for the Twoddl sites above. Where redirections are in use amongst alternative domains Alexa usage becomes less accurate in providing a picture of the real usage of a site.

Wave 4, 7 and 8 indicate the same pattern as has been shown in the other block groups, as there is little new to discuss. The data for these sites has been included alongside usage of all other sites in each group in *Appendix C*.

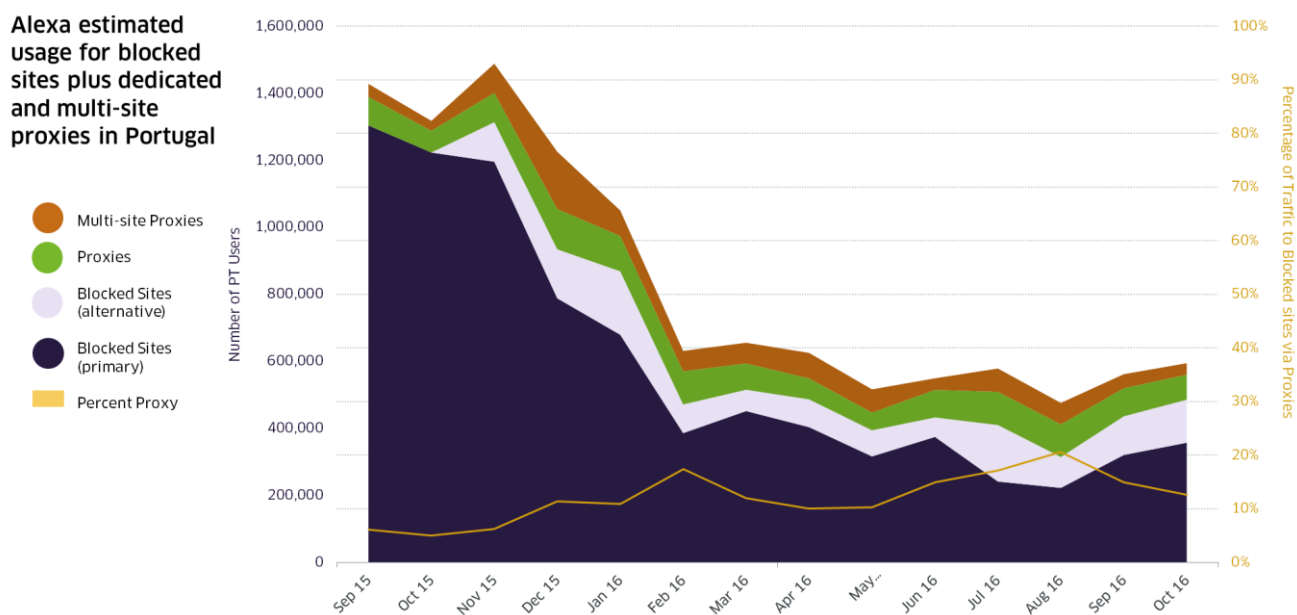
Proxy usage to circumvent ISP website blocking

The analysis of the Alexa estimated usage for blocked sites detailed above did not include traffic going to proxies that were created to circumvent the ISP blocks. There are currently three types of site or service used to achieve this:

- 1) Dedicated sites offering access or a mirror of a specific blocked site
- 2) Sites offering access to more than one blocked site from one place ('multi-site proxies')
- 3) General purpose VPN or proxy services which offer access to any site

INCOPRO tracks all three categories; however, for the purposes of measuring traffic to unauthorised sites, only categories 1 and 2 have been considered in this report.⁹ General purpose VPN and proxy services have been excluded because they allow users to access any website of their choice. As a result, it cannot be definitively concluded that they are being used to access unauthorised sites.

Although the potential for proxy use is ever present, in reality only a few sites have a significant number of active proxies, such as those relating to The Pirate Bay and Kickass Torrents. This is particularly true in Portugal because until relatively recently users were able to access the main sites, so are less likely to have attempted to use proxies. Many Pirate Bay domains were blocked in Portugal in February 2015 and so users of this site may be more likely to have tried to access it via proxies. The graph below illustrates the growth of Portuguese Alexa estimated usage for proxies.



⁹ Please note that where a proxy is hosted on a subdomain of a popular site this is not currently tracked by INCOPRO. This is a result of the way in which Alexa data is collected and made available. Where a domain can be attributed to infringement, for example the multi-proxy site come.in, this is tracked at the domain level and the usage included in the analysis in this section.

This graph reinforces the trend seen above whereby the usage levels of blocked sites have decreased since the staggered implementation of blocking waves have taken effect. The sharpest decrease was seen from November to December, as is clear from the purple section of the graph, and this is largely due to the majority of sites considered in this report (88/146) being blocked during these initial months of the blocking programme.

It is clear that usage of blocked sites is on a downward trend, although this looks to have begun to slow down after February 2016. This is to be expected however, after the initial decrease of users in the first couple of months after the blocks reflects 102 sites being blocked in the four waves which span November 2015 to January 2016. The following four blocking waves cover a lower number of 44 sites, thus having less of an impact upon blocked site usage in the graph. Irrespective of this, the more recent blocks are shown to have been just as effective as earlier blocking waves in this report – there is simply a lower pool of usage to change due to a lower number of sites being affected by the more recent blocking orders.

Usage of proxies generally appears to be on a downward trend, having decreased by 31,007 (29.3%) since January 2016, from 105,710 to 74,703. The majority of remaining proxy usage (26.8%, or 20,042 of the total 74,703 October 2016 usage) is found to be attributable to proxybay.one – a dedicated Pirate Bay proxy site. Multi-site proxies have seen a similar, although larger, 41,808 (55.1%) decrease since January 2016. Here usage is also found to be primarily linked to one leading site – unblocked.uno – which accounts for 71.2% (24,304 out of the total 34,129) of all multi-site proxy usage.

These two sites are found to be under the control of the same entity, which is shown by both proxy platforms linking to each other as well as them sharing the same twitter account - twitter.com/theirateproxy. The twitter appears to be used primarily to announce domain changes to its proxy services. The frequency of changes is likely to be a considerable factor for the usage of both sites remaining relatively low compared to usage peaks seen earlier in the year. As the table (right) shows, the Unblocked domain has changed almost monthly since April 2016, the redirections which Unblocked use in order to transfer users of previous domains to the new site is also likely to have had an impact upon the way in which Alexa records usage data for the site and its various domains.

Date changed	New domain
Nov 2016	unblocked.uno
Oct 2016	unblocked.ist
Sep 2016	unblocked.vip
Aug 2016	unblocked.live
Jul 2016	unblocked.cat
Jun 2016	unblocked.one
Apr 2016	unblocked.tv

As can be seen from the yellow line, the percentage of users to the blocked sites via proxies has generally been increasing over the recorded period, increasing more steeply from November onwards. Again this is to be expected, given the blocking activity, meaning that users are much more likely to attempt access of their favourite sites via proxies; however, the usage of proxies has not actually increased over this period. The rise in the percentage of proxy usage in relation to total blocked site usage is expected to be due instead to blocked site usage decreasing over this period – resulting in the proportion of proxy usage being seen to rise in light of this decrease, rather than any distinct increase in proxy activity in the country.

Comparison of Portugal Alexa estimated usage against control group

It is helpful to set the Portugal top 250 unauthorised sites against a global landscape for a control comparison, therefore the global Alexa estimated usage of the Portuguese top 250 unauthorised sites has been used (minus the global control group¹⁰) for this purpose.

The global control group used in this report was created by excluding the usage of countries deemed as having substantial blocking procedures in place from the total global usage – therefore some of the most notable European site blocking countries have been selected. This control group creates a more useful dataset for the comparison of Portugal site usage to global usage of the same sites as

¹⁰ The global control group excludes the usage from Portugal, Italy, Denmark, Russia and the United Kingdom (those deemed as having substantial site blocking in place) from total global usage.

site actions undertaken by the growing host of blockign countries is likely to have less of an impact upon the global control usage. In order to keep the control group as large as possible only countries which satsify particular threshold metrics have been excluded from the global usage. At this point in time in global site blocking the excluded countries are deemed to be those having the most significance upon the potential for comparisons against a global control group.

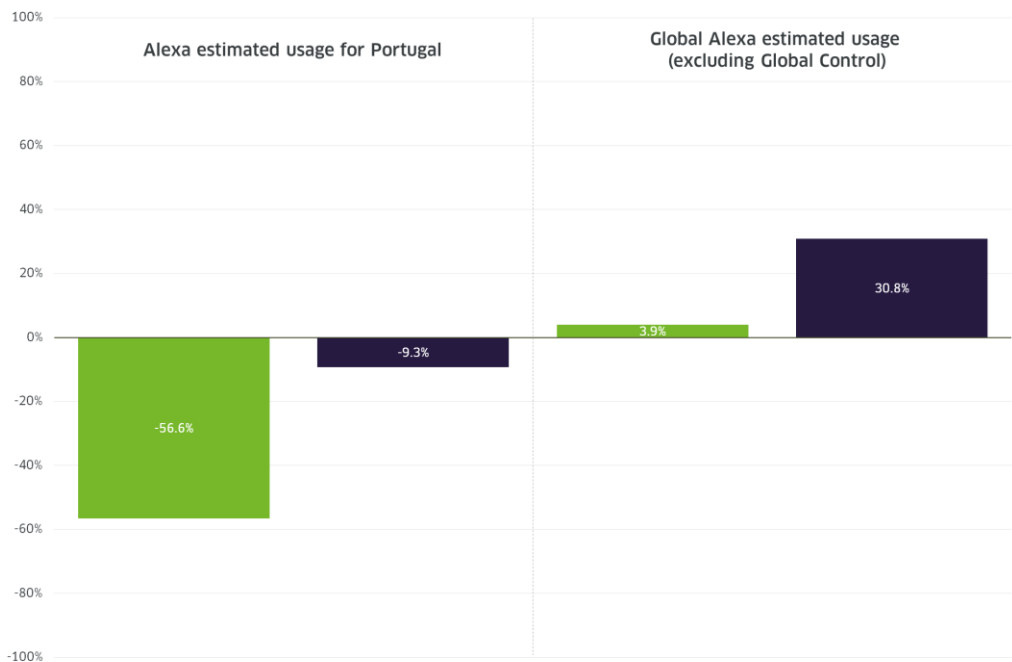
The usage of the same 250 sites has been compared using Alexa estimated usage for February 2016 and for October 2016. The chart below gives an overview of how the Alexa estimated usage of the blocked sites (purple) has changed compared to usage levels before the blocks were implemented. A comparison is made against a global control group to see if the downward trend is Portugal specific or also reflected in the rest of the world.

Change in Alexa estimated usage for Portugal top 250 unauthorised sites

Comparison of Portugal to Global Control

September 2015 vs October 2016

- Sites blocked in Portugal
- Top 250 unauthorised sites in Portugal



The graph tracks the change in usage for the top 250 unauthorised sites in Portugal, updating with usage from the 8-month period since the previous report (February 2016). The key point of note is that the blocked sites in the Portugal top 250 have decreased by a total of 56.6% (537,951). This clearly illustrates that the blocks are having the desired effect and have decreased usage of these sites quite significantly since implementation. Global usage of the sites which are blocked in Portugal has conversely increased by 3.9% (2,789,454).

Overall usage of the top 250 unauthorised sites in Portugal has decreased by 9.3% (131,915), it is expected that the reduction of usage to blocked sites has played a substantial role in this overall reduction. The global control section, charting the usage of the top 250 unauthorised sites in Portugal across the rest of the world, shows that global usage of these top 250 unauthorised sites has increased by a total of 30.8% (41,074,371) since September 2015.

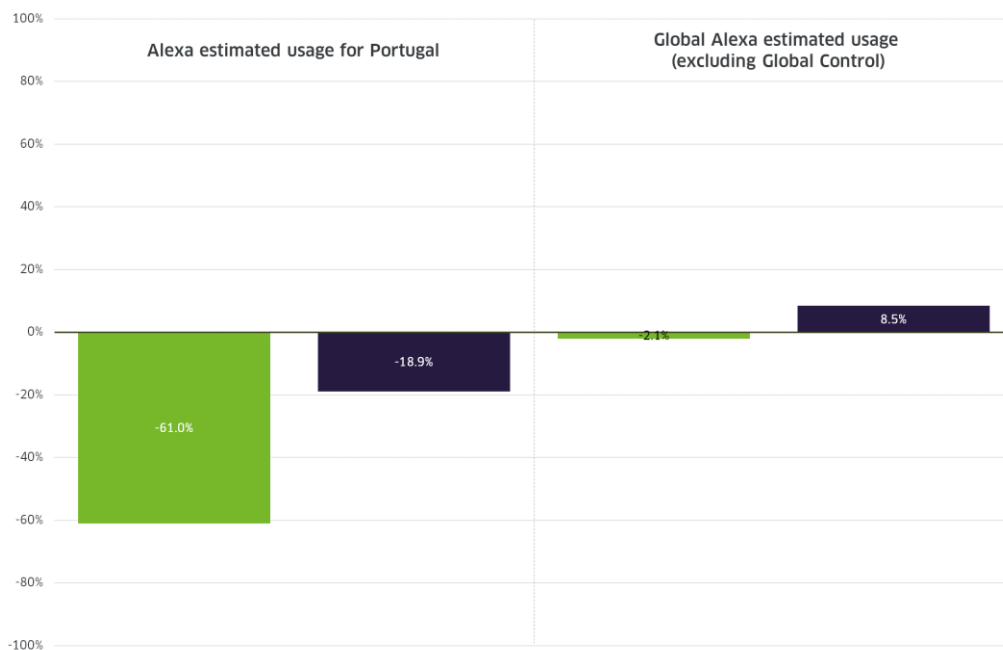
A second top 250 has been prepared to examine the impact of site blocking upon only the categories of site where blocking is possible. The following graph below therefore excludes the 55 hosting-related sites which cannot be blocked from the top 250 and replaces them with sites which.

Change in Alexa estimated usage for Portugal top 250 unauthorised sites, excluding Host sites (or Cyberlockers)

Comparison of Portugal to Global Control

September 2015 vs October 2016

- Sites blocked in Portugal
- Top 250 unauthorised sites in Portugal



When only linking, public P2P portal and other (proxy/streaming) sites are considered there is a measured difference in the overall efficacy of site blocking in relation to the most popular sites being used in the country. The usage of these three categories of site in Portugal is found to have reduced by 18.9% when comparing October 2016 usage to that of September 2015. With hosting sites included, as per the first comparison graph, usage of the top 250 in Portugal was shown to have only reduced by 9.3%. Site blocking has clearly been effective upon reducing the usage of site categories where blocking is possible – even when those sites have not actually been blocked.

Another impact on the Portuguese usage change which must be mentioned as a result of the re-classification of top sites is that 22 additional blocked sites (86 compared to 65) are included in the second top 250. This has had the effect of increasing the usage change to blocked sites by an additional 4%, from 56.6% to 61%.

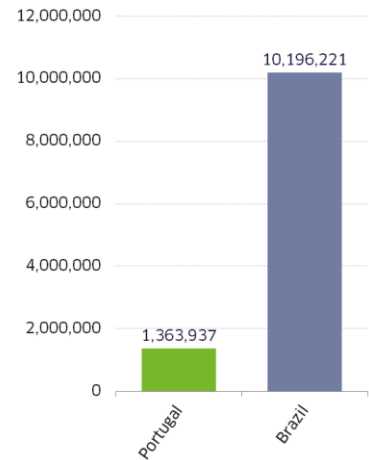
There has also been a considerable impact upon the usage of the global control, with total top 250 usage having increased by 8.5% rather than the previous 30.8%. The reason for this is likely to be that with the globally popular hosting sites removed the list has become even more specific to Portuguese users – meaning that the global usage of the remaining sites has not increased as much outside Portugal as in the original list.

The usage of unauthorised sites in Brazil provides the opportunity for further comment upon the efficacy of site blocking in Portugal. The reason for this is that as both countries use the same primary language there is more likely overlap between the piracy landscapes of these two countries than there perhaps would be comparing Portugal to another European country. Due to this, the Brazilian usage of the top 250 sites in Portugal presents itself as a valuable comparison group owing to the sites having not been blocked in the region. Therefore, the impact of site blocking in Portugal upon Portuguese language sites in Brazil is explored hereafter.

It should first be noted that Brazilian usage is much higher than that of Portugal due to the country having a significantly larger population (approximately 210 million compared to 10 million), which is reflected by Portuguese top 250 usage only amounting to 13.4% of the Brazilian usage of the same sites (1,363,937 compared to 10,196,221).

Portugal Top 250 site usage

Portugal vs Brazil
October 2016



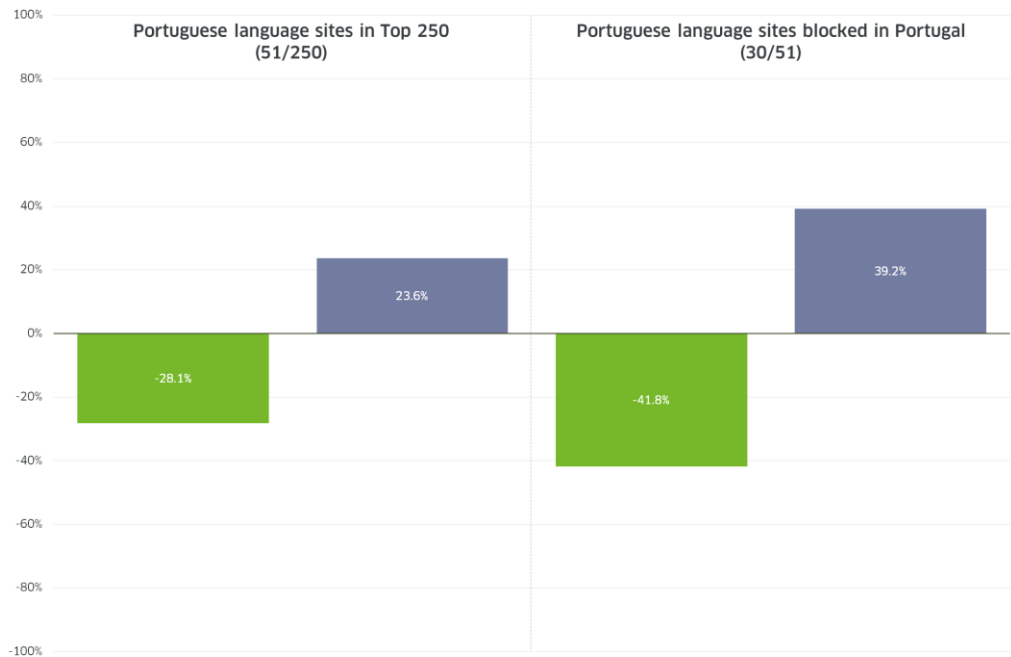
Only Portuguese language sites have been used in the following analysis, of which there are 51 in the Portuguese October 2016 top 250 sites. 30 of these sites are also subject to blocking orders in Portugal, allowing for a direct comparison against a non-blocking country in the form of Brazil.

Change in Alexa estimated usage of Portuguese language sites in top 250 unauthorised sites

Comparison of Portugal and Brazil

September 2015 vs October 2016

- Portugal
- Brazil



Overall, usage of the 51 Portuguese language sites in the top 250 has decreased by 28.1% (88,677) in Portugal since September 2015, from 315,108 to 226,431. Usage of the same sites has increased by 23.6% (998,613) in Brazil, from 4,231,593 to 5,230,206. Portuguese usage of Portuguese language sites has decreased and Brazilian usage of the same sites has increased. This data shows a positive impact of blocking in Portugal which manifests in two ways. Firstly, Brazilian usage indicates that blocking has effectively curbed the

growth of sites in Portugal which would likely have risen otherwise. Secondly, the site blocking programme could be seen to have had a wider effect on piracy landscape in Portugal as it is not just blocked sites displaying a decrease in the country, but all 51 sites.

The usage of the 30 blocked Portuguese language sites shows a very similar trend in the change of usage for both countries – where Portuguese usage has decreased by 41.8% (119,021) for the sites under blocking orders, the same sites have seen a comparatively proportionate increase in Brazil of 39.2% (1,128,365).

Overall, it is clear when comparing Portuguese usage to Brazil, and to the global control, that site blocking in the country has had a measured success; both in terms of reducing the usage of sites targeted by blocking orders and in affecting the wider piracy landscape, which has also seen a reduction in usage since the site blocking regime began.

Conclusion

The data considered in this report indicates that site blocking is having a positive impact on the usage of infringing sites. Findings show that the initial impact of site blocking documented in the previous report has proved to be long-lasting, reducing the usage of infringing sites within Portugal by 69.7%. The usage of the blocked sites has shown a clear and continued move in the right direction, losing the majority of usage for all 8 waves considered in the report. Blocking has clearly had a positive effect on reducing the levels of usage of unauthorised sites in Portugal.

The report finds evidence suggesting that users of blocked sites are moving to alternate domains specific to the blocked sites to continue accessing infringing content. Though usage is migrating to alternate sites in some cases, this shift of usage amounts to only minor proportions of previous pre-block usage.

Site blocking has had a discernible effect upon the usage of unauthorised sites in Portugal. Usage of the sites under the blocking order has decreased by 56.6% in Portugal whilst increasing by 3.9% in the global control group. Furthermore, the blocking appears to have had an impact, at least to some extent, in the reduction of overall usage of the most popular infringing sites in Portugal. Overall usage of the top 250 unauthorised sites has decreased by 9.3% since the blocks were put in place. Usage of the same sites in the global control group has conversely increased by a considerable 30.8%. Based upon the increase of top 250 for the global control it is likely that the impact of site blocking has extended outside only the targeted blocked sites and is also having an effect upon the usage of non-blocked sites in Portugal.

Appendix A: Methodology

INCOPRO's Identify database tracks over 16,000 sites, therefore gaining an excellent picture of the overall piracy landscape. The websites contained in this report are identified by INCOPRO's Infringement Index; sites that either infringe copyright or that facilitate infringement of copyright (whether knowingly or not), by making available films and television programmes to the public, without the licence or consent of the owners of the copyrights in those works ("top 250 unauthorised sites/sites").

Tracking Alexa data globally and by territory enables examination of the trends in popularity and estimated usage of sites in the Identify database. INCOPRO translates this Alexa data into Alexa estimated usage, which can give an indication of the usage of a given site in real terms, as explained further below. The data set used for the Portuguese landscape is based on all sites tracked in the Identify database with recorded usage in Portugal during the 8-month period following the previous February 2016 report.

As of November 2015 INCOPRO is able to track all domains related to each individual site and so the data used in this section of the report incorporates any existing alternate domains from November 2015 to October 2016. The usage value attributed to alternate domains will be highlighted where necessary and included separately in any graphs, so the impact of the extra data available is clear. This improves the accuracy of the data for each site and is referred to as "alternate domain usage". The inclusion of this data helps to show where site operators are using other domains, not subject to blocking, to circumvent the blocks and continue to attract users.

Where sites have a number of domains that work in a similar way, these can be identified in the graphs below where sites show a split bar of data or are otherwise marked as illustrating the alternate domain usage data. Any sites shown in the graphs with 2 plus signs ('++') next to their domain name represent those sites that are subject to current blocking orders in Portugal.

For the purposes of the analysis in this report, 2 data sets have been used:

1. The top 250 unauthorised websites that make available film and television content to Internet users in Portugal without the licence or consent of the companies that are responsible for the production and distribution of such films and television programmes. Some of these sites may also make available other copyright content, such as The Pirate Bay. Sites that do not make available film and television content have not been analysed in this report. The Portugal top 50 unauthorised sites have been identified using INCOPRO's database of websites, Identify, and by reference to INCOPRO's "Infringement Index", combined with a usage metric derived from Alexa data, explained later in this appendix.

This top 50 was compiled in November 2016, using the usage data from all primary/main domains in October 2016, together with any "alternate domain usage" (defined below) to calculate the current top 50.

2. INCOPRO used a list of 338 sites that have been blocked in Portugal, of which INCOPRO's Identify database tracks 172. Out of the 172, 146 sites have been used to assess the efficacy of site blocking in Portugal. Where relevant, those sites which are aimed at circumventing the blocking, i.e. proxies, have also been included. The Portuguese Alexa estimated usage data extends the period used in the previous report, therefore data covers the period from September 2015 up to the end of October 2016, providing a picture of the usage of these sites prior to the blocks, and then subsequent to the implementation of the blocks to assess their efficacy.

All sites were online at the time of data collection, but this is subject to change at any time due to the way in which these sites operate. It is also important to note that the 2 data sets described above are not mutually exclusive and have some overlap, as there are 18 blocked sites which currently still experience sufficient usage so as to appear in the Portugal top 50.

The data used to prepare these reports is manually reviewed prior to analysis to ensure its quality. Appendix B contains the complete list of the Portugal top 50 unauthorised sites referred to in this report. The sites blocked in Portugal have been divided into groups by the dates they were blocked, to assist with analysis. The lists of blocked sites included in this analysis can be found in Appendix C.

INCOPRO chose Alexa as its first provider of traffic metrics and is working to integrate other data sources in the future. Many people have misconceptions regarding the data provided by Alexa, possibly due to several changes in methodology throughout their history and being slightly opaque about the detail of their data collection.

Prior to 2008, Alexa traffic estimates were based solely on their browser toolbar, which users had to manually install on their computer. In 2008 Alexa announced that they were no longer relying solely on the toolbar data, and instead pulled in data from a variety of sources, including buying data from ISPs. Alexa's methodology has changed again over the past few years, which appears to coincide with Alexa launching their direct site measurement program (Alexa Certified Metrics). Alexa has removed all text from their information pages regarding buying data from ISPs/collecting from a variety of sources, and now state the following (paraphrased):

- Traffic estimates are based on data from their global traffic panel, a sample of all internet users. The panel consists of millions of users using toolbars created by over 25,000 different publishers, including Alexa and Amazon.
- Some sites are directly measured by Alexa – site operators can sign up to Alexa's certified metrics program.
- Traffic Rank is a measurement of traffic to a website, relative to all other sites on the web over the past 3 months (a rolling 3 month period updated daily) and calculated using a combination of the estimated average daily unique visitors to the site and estimated number of page views over the past 3 months.
- Alexa corrects for biases in the demographic distribution of site visitors, they correct for potential biases in data collected from the various browser extensions, to better represent the type of visitors who might not be in their measurement panel. That being said, biases still exist.
- Due to the concentration of visitors being on the most popular sites, it is difficult to accurately determine the rank of sites with fewer than 1000 monthly visitors. Therefore traffic rankings of 100,000 and above should be considered rough estimates. The closer a site gets to number 1, the more accurate its traffic ranking becomes.

Alexa's collection methods and traffic data were presented and explained in court in 2013 by INCOPRO's Director of Technology, Bret Boivin. This evidence was accepted by the judge and formed an important part of the successful case against the defendant.

As there are several data providers that offer usage numbers for sites, and each provider applies a different methodology and draws data from different sources, INCOPRO has chosen to refer to the usage metric as an overall 'Alexa usage estimate'. This is to avoid inconsistencies with other data sources, and because the focus of this report is concerned with the impact of enforcement as opposed to the number of users for particular sites.

To determine this usage metric, we translate the Alexa reach, which is expressed as number of users per million, for each site and user percentages into estimates of the estimated usage of a website. To do this, the global internet population has been obtained from the latest ITU Facts and Figures (published February 2013). Alexa reach data is tracked automatically by our system, along with a number of other key metrics. For this calculation, the 3 month reach data is used with the ITU figure to produce the usage metric.

Alexa also makes data available for territories individually where the website has enough traffic data in that country. This is expressed as a percentage of all users visiting the site. This percentage figure is used in conjunction with the above reach calculation to get the Alexa estimated usage metric for the site in a given territory. The above calculations are taken on a day-by-day basis and then used to calculate the median value for the month for each site, for both the global and country calculations. Given the fluctuations in numbers that can occur as a site decreases in popularity, this is the best way to remove any dramatic increases or decreases.

This Alexa usage estimate is used to show trends in relation to particular sites. Sites relevant to all aspects of the piracy landscape, from legitimate services to proxies used to circumvent ISP blocking measures are dynamically tracked by INCOPRO. We can also confidently assess the impact on other sites that are in the same type of “piracy market” and that might be expected to benefit from blocking applied to other sites. Our confidence on this stems from the fact that the INCOPRO system has tracked blocked sites and the key other piracy sites for a substantial period and has also tracked all known proxies for such sites. This tracking has had to be meticulous because the tracking is then used to notify ISPs of site and proxy domains to be blocked. More data sources are being identified and included in INCOPRO’s Site Intelligence Database (Identify) as time goes by, which will increase the data points available for comparison.

Appendix B: Portugal Top 50 unauthorised sites

This list is ranked by popularity according to Alexa estimated usage of each site, including alternate domain usage where appropriate as at the end of October 2016. This includes those sites presently blocked where the usage remains high enough for the site to fall within the top 50 (indicated by “++” next to the domain).

Number	Host	Sep 15	Oct 15	Nov 15	Dec 15	Jan 16	Feb 16	Mar 16	Apr 16	May 16	Jun 16	Jul 16	Aug 16	Sep 16	Oct 16
1	toppt.net++	113,160	113,618	109,076	86,132	60,020	44,732	40,573	48,125	53,706	60,005	67,077	66,980	67,424	71,444
2	mega.nz	25,360	47,353	47,300	46,214	75,089	74,878	44,360	0	0	0	0	62,157	61,513	51,773
3	openload.co	12,592	0	0	0	14,233	0	0	0	0	0	0	0	0	49,274
4	zippyshare.com	40,306	40,688	40,679	33,892	32,577	0	0	0	0	0	0	0	0	43,383
5	torrentz.eu++	104,784	103,361	115,658	82,156	60,474	0	0	2,117	2,406	523	1,760	1,746	6,194	42,293
6	rarbg.to++	28,144	28,177	28,689	21,518	32,589	33,992	22,839	16,628	16,078	16,422	5,305	6,392	28,593	36,005
7	videomega.tv	18,994	19,505	20,219	22,761	22,529	22,968	20,003	17,577	32,369	22,802	0	0	28,662	32,452
8	yts.ag	40,405	36,537	31,376	1,815	0	4,892	0	12,972	13,415	0	0	24,439	26,233	31,068
9	kat.cr++	275,751	235,697	173,948	1,661	0	1,246	1,229	982	1,063	1,030	1,005	996	63,452	30,180
10	watchseriesgo.to++	5,736	4,909	6,110	6,215	0	8,749	0	0	0	0	0	0	13,654	27,448
11	4shared.com	0	0	0	29,212	28,839	24,879	24,388	0	0	0	0	21,252	21,134	26,449
12	nitroflare.com	12,104	18,790	19,114	19,513	17,295	12,909	9,487	7,144	7,324	7,517	9,137	9,486	10,616	26,084
13	unblocked.ist	0	0	0	0	0	0	40,521	55,282	52,140	33,197	53,718	44,330	23,212	24,304
14	1fichier.com	10,516	12,029	9,453	9,586	11,707	9,137	9,088	0	9,096	9,871	0	0	0	24,238
15	pirateproxy.vip	38,457	17,445	39,503	56,929	30,995	28,708	0	0	0	1,969	6,912	26,256	39,834	20,042
16	watchfree.to++	0	0	0	7,326	7,476	0	0	0	0	13,531	13,428	11,394	13,872	18,656
17	thepiratebay.mine.nu	19,391	14,576	16,141	12,335	9,070	12,244	8,108	5,561	3,490	4,572	5,733	6,801	7,742	17,850
18	vodlocker.com	17,777	19,571	21,216	21,664	0	0	0	0	0	0	0	0	0	17,610
19	thevideo.me	3,148	3,305	3,895	0	0	0	0	0	0	0	0	0	13,762	17,112
20	vidzi.tv	0	6,551	9,021	6,927	11,562	15,259	23,127	21,202	18,497	27,147	24,505	23,027	27,000	16,829
21	filmesonlinegratis.net++	96,809	86,110	66,763	39,012	40,780	48,070	42,881	41,877	36,550	37,866	35,620	33,985	29,506	16,051
22	2ddl.me++	2,367	1,959	4,488	4,120	4,934	4,401	2,592	2,245	3,743	4,224	2,605	3,146	4,877	13,177
23	eztv.ag++	13,919	18,934	24,098	18,061	0	10,965	12,494	354	381	474	10,771	0	0	12,493
24	en.usenet.nl	3,871	3,987	6,553	5,814	6,811	5,274	5,123	5,441	7,368	7,916	0	0	0	12,045
25	the-watch-series.to++	5,848	15,728	27,742	14,578	16,964	11,324	6,167	4,354	2,205	1,310	840	0	1,976	11,277
26	seriesparaassistironline.org	0	0	0	0	0	0	63,518	56,928	30,239	21,723	18,500	13,064	14,473	10,582
27	avxsearch.in++	10,467	13,360	7,620	5,117	4,964	1,504	1,038	0	0	554	1,623	373	1,554	10,549
28	put.io	9,134	7,073	8,368	9,808	6,948	2,376	3,576	2,494	1,655	862	1,383	1,195	1,529	10,287
29	sendspace.com	0	8,252	9,902	8,361	9,552	0	0	0	0	0	0	0	0	9,138
30	kat.al	0	0	0	0	0	0	0	0	0	217	329	2,039	5,651	9,074
31	itorrents.org	0	0	0	0	0	0	1,667	2,259	2,816	1,977	0	3,704	7,439	8,993
32	btvsports.site++	0	0	0	0	0	0	12,421	13,434	12,034	6,307	1,009	1,971	6,376	8,982
33	vidbull.com	7,186	8,002	9,868	11,814	0	0	0	7,069	7,758	7,573	0	0	7,625	8,974
34	watch-episodes.co++	3,198	2,243	0	8,040	17,280	22,990	14,589	27,649	22,741	18,918	14,366	18,824	13,006	8,938
35	sharethefiles.com/forum	0	0	0	0	0	0	4,216	4,189	3,886	4,520	4,968	3,174	2,489	8,547
36	depositfilesonic.com	0	0	0	0	0	12,497	19,139	16,032	9,237	7,985	6,139	5,848	6,019	8,473
37	warez-bb.org	7,352	6,147	6,524	7,608	7,144	3,838	2,499	2,791	4,541	5,543	6,047	4,347	3,120	8,329
38	torrentdownloads.me++	6,507	6,542	16,752	24,765	16,356	9,594	6,438	0	0	0	0	0	0	8,210
39	watchseries.cr	0	8,684	7,675	3,338	4,497	2,840	0	1,913	4,208	5,637	5,553	5,466	5,252	8,043
40	verseriesynovelas.tv	0	0	0	0	0	0	0	0	0	5,178	6,080	6,473	5,316	7,800
41	clicknupload.link	0	0	0	0	0	0	0	0	0	0	0	0	0	7,791
42	seriesonlinehd.org++	0	0	0	0	0	0	31,207	28,570	17,898	15,315	15,362	11,091	9,220	7,719
43	assistirfilmeshd.org++	0	0	0	3,340	2,841	1,686	1,541	1,092	773	1,324	1,585	5,537	9,333	7,667
44	watchseries-online.nl	4,749	0	1,549	2,757	5,034	5,909	3,508	4,009	5,115	5,959	4,191	7,433	9,108	7,420
45	avxhome.se++	9,326	13,158	9,144	0	6,032	5,902	0	3,079	2,924	3,727	3,981	0	3,281	7,297
46	torrentunlock.com	0	0	0	0	0	0	0	0	0	0	0	0	0	7,033
47	sizedrive.com	0	1,495	0	3,102	0	0	770	2,068	2,663	4,224	5,704	8,091	7,311	6,826
48	filespook.com	0	0	0	0	0	0	0	0	0	0	776	1,302	1,315	6,801
49	rmz.cr	8,094	13,734	10,473	3,721	3,521	3,722	1,919	1,676	2,222	2,220	2,770	821	2,678	6,689
50	divxtotal.com++	0	4,310	6,341	4,516	3,654	3,554	0	0	0	0	0	0	0	6,653

Appendix C: Sites Blocked in Portugal

Wave 1

The 146 sites considered throughout the report were split into 8 groups according to the date on which their blocks were expected to have been implemented. The table below lists each blocked site in Wave 1 with any related alternate domains underneath. The yellow highlighted cells indicate the approximate implementation of the blocks.

Domain	Name	Category	Nov 15	Dec 15	Jan 16	Feb 16	Mar 16	Apr 16	May 16	Jun 16	Jul 16	Aug 16	Sep 16	Oct 16
thepiratebay.org	The Pirate Bay	Public P2P Portal	-	1,025	3,249	3,339	964	955	525	-	-	-	-	-
thepiratebay.se	The Pirate Bay	Public P2P Portal	8,781	13,360	7,975	-	-	-	-	47,119	72,989	6,723	4,078	3,472
thepiratebay.gd	The Pirate Bay	Public P2P Portal	-	20,352	15,567	-	-	-	-	-	-	-	-	-
thepiratebay.la	The Pirate Bay	Public P2P Portal	-	-	21,183	-	-	-	-	-	-	-	-	-
thepiratebay.mn	The Pirate Bay	Public P2P Portal	-	-	10,162	-	-	-	-	-	499	-	-	-
kat.cr	Kickass Torrents	Public P2P Portal	172,287	-	-	-	-	-	-	-	-	-	60,848	23,134
kickass.to	Kickass Torrents	Public P2P Portal	-	-	-	-	-	-	-	-	-	-	-	4,001
kat.ph	Kickass Torrents	Public P2P Portal	1,661	1,661	-	1,246	1,229	982	1,063	1,030	1,005	996	2,604	3,045
extratorrent.cc	Extratorrent	Public P2P Portal	45,548	-	-	-	-	-	-	-	-	-	-	-
etmirror.com	Extratorrent	Public P2P Portal	7,676	14,130	17,652	4,342	5,511	2,540	3,804	1,553	1,126	1,706	1,379	228
extratorrent.date	Extratorrent	Public P2P Portal	-	-	-	-	-	5,814	4,657	4,869	7,411	6,658	4,436	1,536
etproxy.com	Extratorrent	Public P2P Portal	-	-	-	-	-	-	490	-	-	-	-	-
extratorrentlive.com	Extratorrent	Public P2P Portal	-	-	-	-	-	-	-	345	-	-	368	-
torrenthound.com	Torrenthound	Public P2P Portal	20,408	18,746	13,867	8,905	5,566	4,852	4,790	-	-	-	5,681	5,931
torrenthound.ru	Torrenthound	Public P2P Portal	2,104	-	-	-	-	-	-	-	-	-	-	-
1337x.to	1337x	Public P2P Portal	12,703	-	12,564	-	-	-	-	-	-	-	-	-
1337x.org	1337x	Public P2P Portal	-	-	1,584	3,243	1,706	-	-	-	-	-	-	-
torrentreactor.com	TorrentReactor	Public P2P Portal	8,016	7,421	4,254	3,039	-	-	-	-	-	-	-	-
sensrc.me	SceneSource	Linking Only	14,198	7,775	10,245	6,164	7,493	3,634	3,387	3,139	2,147	1,360	994	4,849
1channel.ch	Primewire.ag (1Chan..)	Linking Only	1,589	-	1,750	1,047	1,030	803	1,007	930	872	733	996	2,266
primewire.org	Primewire.ag (1Chan..)	Linking Only	-	1,314	1,535	1,461	1,347	6,279	3,446	1,704	1,454	1,046	703	942
forum-maximus.net	Forum Maximus	Linking Only	1,889	-	-	-	-	-	620	-	-	-	-	-
filmesonlinegratis.net	Filmes Online Gratis	Linking Only	66,763	39,013	40,782	48,070	42,881	41,877	36,550	37,866	35,620	33,985	29,506	16,051
thewatchseries.to	Watch Series (BTVGuide)	Linking Only	19,092	-	-	-	-	-	-	-	-	-	-	-
watch-series.ag	Watch Series (BTVGuide)	Linking Only	4,295	6,700	7,399	3,196	-	-	-	-	-	-	-	-
watchseries.ph	Watch Series (BTVGuide)	Linking Only	4,359	7,882	9,565	8,129	6,167	4,354	1,883	921	-	-	-	-
watchseries.to	Watch Series (BTVGuide)	Linking Only	-	-	-	-	-	-	318	389	610	-	-	-
watch-series.to	Watch Series (BTVGuide)	Linking Only	-	-	-	-	-	-	-	-	230	-	-	8,736
watch-series-tv.to	Watch Series (BTVGuide)	Linking Only	-	-	-	-	-	-	-	-	-	-	1,768	2,675
projectfree-tv.to	Watch Series (BTVGuide)	Linking Only	-	-	-	-	-	-	-	-	-	-	1,335	2,135
rarbg.to	Rarbg	Public P2P Portal	20,181	13,146	14,521	15,933	13,009	10,743	12,737	13,152	-	-	21,646	31,118
rarbg.com	Rarbg	Public P2P Portal	8,513	8,373	16,664	14,975	7,039	3,224	2,613	2,093	2,872	2,452	1,644	1,502
rarbgmirror.com	Rarbg	Public P2P Portal	-	-	1,408	3,087	2,791	2,661	770	1,177	2,433	3,940	5,303	3,385
baixartv.com	Baixartv	Linking Only	1,742	-	-	-	-	-	-	-	-	-	-	-
piratutuga.xyz	PiratutugaFilmes	Linking Only	958	2,037	3,136	3,359	-	-	-	-	-	-	-	-
piratutugafilmes.com	PiratutugaFilmes	Linking Only	3,534	-	-	-	-	-	-	-	-	-	-	-
piratutugafilmes.xyz	PiratutugaFilmes	Linking Only	-	-	-	-	1,131	2,447	2,098	904	821	772	-	-
clubedownload.info	Clubedownload	Public P2P Portal	1,728	-	-	-	-	-	-	-	-	-	-	-
clubedown.com	Clubedownload	Public P2P Portal	1,031	1,690	3,046	2,135	2,634	819	897	1,178	1,496	1,032	1,332	1,494
monova.org	Monova	Public P2P Portal	6,604	4,722	3,558	-	-	-	-	-	-	-	4,707	3,150
toppt.net	Top-PT	Linking Only	100,159	74,331	58,808	44,733	40,573	47,329	52,762	58,935	67,077	66,765	67,155	71,212
toppt.tv	Top-PT	Linking Only	8,920	10,799	-	-	-	-	-	-	-	-	-	-
top-pt.com	Top-PT	Linking Only	-	-	-	-	-	796	953	1,070	-	215	269	232
cinefilmesonline.net	CineFilmesOnline	Linking Only	17,279	12,801	10,472	8,523	7,767	8,915	9,740	7,903	12,513	7,078	5,910	6,501
isohunt.to	ISOHunt	Public P2P Portal	7,237	6,712	5,580	-	-	3,931	4,153	-	-	-	-	-
watchseries.ag	WatchSeries.It	Linking Only	3,987	5,607	3,354	-	-	-	-	-	-	-	-	-
watchtseries.se	WatchSeries.It	Linking Only	-	-	1,560	1,382	2,109	1,097	541	1,139	897	1,194	573	-
watchtseries.vc	WatchSeries.It	Linking Only	-	-	-	-	-	-	528	1,242	1,365	1,432	1,505	423
watchseriesfree.to	WatchSeries.It	Linking Only	-	-	-	-	-	-	-	-	-	1,234	1,409	-
tuga-filmes.info	Tuga-Filmes	Linking Only	719	-	-	-	-	-	-	-	-	-	-	-
tuga-filmes.com	Tuga-Filmes	Linking Only	7,187	6,769	7,676	7,008	5,794	11,472	13,319	10,329	8,671	6,562	4,222	2,599
elitedosfilmes.com	EliteDosFilmesCom	Linking Only	-	-	-	-	-	522	488	398	487	414	719	918
dayt.se	DayT.se (G2G)	Public P2P Portal	7,244	6,330	-	-	-	-	-	-	-	-	-	-
megafilmeshd.net	MegaFilmesHD	Linking Only	119,864	76,291	70,078	20,255	2,851	1,235	823	831	1,059	772	583	-
seriesvix.tv	SeriesTVix	Linking Only	3,750	3,191	-	-	-	-	-	-	-	-	-	-
filmesonline2.com	FilmesOnline2	Linking Only	8,332	5,563	3,533	2,824	3,852	3,354	1,961	1,594	1,167	1,038	-	-
filmesonline2.tv	FilmesOnline2	Linking Only	-	-	-	-	-	-	-	-	-	150	516	764
seriesvideobb.com	Assistivideo (SeriesVideoBB)	Linking Only	12,934	10,633	-	-	-	-	-	-	-	-	-	-
seriesvideobb.net	Assistivideo (SeriesVideoBB)	Linking Only	-	2,725	8,335	12,062	8,049	10,183	10,583	9,863	8,717	6,214	6,148	3,998
watchseries.li	WatchSeries.li (Copycat)	Linking Only	6,113	6,216	-	8,750	-	-	-	-	-	-	-	-
watchseries.ac	WatchSeries.li (Copycat)	Linking Only	-	-	-	-	-	-	-	-	-	-	13,654	24,347
watchseriesgo.to	WatchSeries.li (Copycat)	Linking Only	-	-	-	-	-	-	-	-	-	-	-	3,101

Wave 2

The table below lists each blocked site in the Wave 2 application with any related alternate domains underneath.

Domain	Name	Category	Nov 15	Dec 15	Jan 16	Feb 16	Mar 16	Apr 16	May 16	Jun 16	Jul 16	Aug 16	Sep 16	Oct 16
torlock.com	Torlock	Public P2P Portal	12,305	7,714	7,892	3,159	2,118	3,004	4,236	5,360	3,854	3,146	4,089	6,493
seedpeer.eu	Seedpeer	Public P2P Portal	9,171	7,227	5,870	3,323	-	2,782	3,063	3,498	3,555	-	3,469	2,505
torrentfunk.com	Torrent Funk	Public P2P Portal	17,124	15,515	13,889	6,554	5,400	5,491	-	-	-	-	-	-
bitsnoop.com	Bitsnoop	Public P2P Portal	14,111	10,024	6,803	4,444	-	2,948	-	-	-	-	-	-
sceper.ws	Sceper	Linking Only	1,894	-	-	-	-	-	899	-	-	-	-	1,561
avxhome.se	Avxhome	Linking Only	9,146	-	5,563	5,906	-	-	-	-	-	-	-	-
avxhome.in	Avxhome	Linking Only	-	-	472	-	-	3,079	2,924	2,430	2,354	-	3,405	6,678
avaxhm.com	Avaxhome	Linking Only	-	-	-	-	-	-	-	1,283	1,519	-	-	-
sanet.me	SoftArchive	Linking Only	1,869	-	-	-	-	-	1,074	-	-	-	-	-
softarchive.la	SoftArchive	Linking Only	-	-	-	-	-	-	557	965	2,707	4,067	4,690	3,940
cucirca.eu	Cucirca	Linking Only	3,190	5,584	3,411	2,700	1,732	2,307	1,387	1,704	1,736	794	580	-
armagedonfilmes.biz	ArmagedonFilmes	Linking Only	22,155	12,261	7,421	9,426	6,731	8,437	7,155	7,526	6,291	6,291	6,735	3,904
tubeplus.is	TUBE+	Linking Only	5,247	5,344	-	-	-	-	-	-	-	-	-	-
tubeplus.ag	TUBE+	Linking Only	-	-	-	-	-	-	-	-	-	-	-	3,059
torrents.net	Torrents.net	Public P2P Portal	6,730	8,432	4,165	2,642	2,052	1,509	1,529	-	-	-	-	-
yourbittorrent.com	YourBitTorrent	Public P2P Portal	20,868	14,834	13,762	-	-	4,098	-	-	-	-	-	2,187
ddlvalley.cool	DDLValley	Linking Only	1,696	2,603	-	1,000	1,623	908	1,071	1,340	1,608	1,083	2,491	4,693
telona.org	Telona	Linking Only	-	-	-	-	-	761	492	389	431	-	260	-
amofilmes.net	AmoFilmes	Linking Only	-	-	1,492	1,345	698	465	436	1,428	-	-	-	-
megafilmesonlinehd.com	MegaFilmesOnlineHd	Linking Only	5,001	4,477	5,566	6,369	9,154	7,575	4,582	3,466	4,133	4,475	3,523	1,991
topdezfilmes.org	TopDezFilmes	Public P2P Portal	-	-	-	-	940	1,846	1,818	3,256	3,347	4,416	3,010	2,134
baixartorrent.net	BaixaTorrent	Public P2P Portal	6,471	2,008	2,658	4,519	1,993	2,485	2,119	2,577	1,727	1,218	1,296	1,559
filmesdetv.com	FilmesDeTv	Linking Only	2,279	1,879	2,542	2,437	2,094	1,486	1,075	1,581	991	695	1,246	448
toptorrent.org	TopTorrent	Public P2P Portal	-	-	-	-	-	481	-	-	-	-	-	-
teutorrent.com	TopTorrent	Public P2P Portal	-	-	-	-	-	-	-	-	-	-	1,510	1,433
megafilmesonline.net	MegaFilmesOnline (FilmesOnlineGratis)	Linking Only	18,026	8,944	10,301	11,162	14,241	12,370	8,930	8,534	8,785	9,171	7,322	3,289
supercineonline.com	FilmesSeriesOnline (SuperCineOnline)	Linking Only	2,315	-	-	-	-	-	-	-	-	-	-	-
supercineonline.tv	FilmesSeriesOnline (SuperCineOnline)	Linking Only	-	876	3,180	4,253	3,519	4,298	3,009	2,566	3,958	3,799	3,694	3,011
ilovefilmesonline.com	ILoveFilmesOnline	Linking Only	2,442	2,232	3,140	3,115	3,107	2,788	2,177	3,010	2,791	3,569	3,308	2,345
projectfreetv.so	Project-FreeTV (.so)	Linking Only	11,204	-	-	-	-	-	4,582	4,740	-	-	-	-
megafilmeshd.tv	MegaFilmesHD (.tv)	Linking Only	-	-	-	-	-	-	-	-	241	176	-	-

Wave 3

The table below lists all domains for the sites associated with the third administrative blocking wave in Portugal, which took effect in December 2016.

Domain	Name	Category	Nov 15	Dec 15	Jan 16	Feb 16	Mar 16	Apr 16	May 16	Jun 16	Jul 16	Aug 16	Sep 16	Oct 16
limetorrents.cc	LimeTorrents	Public P2P Portal	20,677	23,453	20,435	6,028	5,447	5,020	4,394	-	-	-	-	-
limetor.co	LimeTorrents	Public P2P Portal	-	-	-	-	-	-	-	-	-	264	234	-
eztv.ag	EZTV	Public P2P Portal	24,099	18,062	-	10,965	12,494	-	-	-	10,771	-	-	12,493
zoink.ch	EZTV	Public P2P Portal	-	-	-	-	-	354	381	474	-	-	-	-
solarmovie.is	Solarmovie (real)	Linking Only	9,498	-	-	-	-	-	-	-	-	-	-	-
solarmovie.ph	Solarmovie (real)	Linking Only	2,297	3,857	-	-	-	-	-	-	-	-	-	-
elitetorrent.net	EliteTorrent	Public P2P Portal	4,709	5,084	-	-	-	-	-	-	-	-	-	4,610
downtut.net	Downtut	Linking Only	1,854	-	-	-	-	-	-	-	-	-	-	-
tfilm.me	Tfilm.me (Filmin)	Linking Only	2,714	-	-	-	-	-	-	-	-	-	-	-
tfilm.club	Tfilm.me (Filmin)	Linking Only	-	-	-	-	-	-	-	-	-	-	1,606	-
castordownloads.info	CastorDownloads	Linking Only	-	2,284	2,561	1,638	1,123	365	569	646	789	969	1,199	786
rslinks.org	RSLinks	Linking Only	1,994	-	-	-	-	-	-	-	-	-	-	-
viooz.ac	Viooz	Linking Only	4,998	2,991	-	-	-	-	-	-	-	-	-	-
divxtotal.com	DivxTotal	Public P2P Portal	6,341	4,517	3,655	3,555	-	-	-	-	-	-	-	6,653
torrentbutler.eu	TorrentButler	Public P2P Portal	6,330	4,154	-	-	-	-	-	-	-	1,761	1,645	-
990.ro	990	Linking Only	2,093	-	-	-	-	-	-	-	-	-	-	-
solarmovie.ac	Solarmovie.ac (copycat)	Linking Only	5,677	6,247	7,199	-	5,126	-	-	-	-	-	-	-
movie2kto.io	Movie2kto.so	Linking Only	-	-	-	-	-	-	-	382	558	616	-	-
geektv.me	GeekTV	Linking Only	2,941	3,877	3,935	3,339	-	-	-	-	-	-	-	-
geektv.is	GeekTV	Linking Only	-	-	-	-	414	800	1,787	1,873	-	726	-	-
geektv.ag	GeekTV	Linking Only	-	-	-	-	-	-	-	423	688	711	-	-
geektv.ma	GeekTV	Linking Only	-	-	-	-	-	-	-	-	-	370	946	4,153
avxsearch.se	AvaxSearch (Avaxhome)	Linking Only	7,620	5,117	3,849	-	-	-	-	554	442	373	509	2,377
avxsearch.in	AvaxSearch (Avaxhome)	Linking Only	-	-	1,116	1,505	1,038	-	-	-	1,181	-	1,045	8,172
filespr.biz	Filespr	Linking Only	837	-	-	-	-	-	-	-	-	-	-	-
filespr.com	Filespr	Linking Only	-	-	-	-	-	-	166	229	-	-	-	-
ororo.tv	Ororo.tv	Linking Only	2,863	3,722	2,127	1,426	-	-	-	-	-	-	-	-
kinobar.net	KinoBar	Linking Only	-	-	-	-	-	-	883	-	-	-	-	-
onlinemovies.pro	OnlineMovies	Linking Only	2,592	2,160	-	-	7,939	-	-	-	-	-	-	-
putlocker.mn	PutLocker (.mn)	Linking Only	2,392	-	-	1,121	904	-	-	-	-	-	-	-
putlocker.ms	PutLocker.to	Linking Only	7,568	-	7,144	6,784	-	-	-	-	-	-	-	-
putlocker.to	Putlocker.to	Linking Only	-	-	-	-	-	460	-	-	-	-	-	-
putlocker.ac	Putlocker.to	Linking Only	-	-	-	-	-	-	-	-	656	1,687	2,608	4,181
watchepisodes.com	WatchEpisodes	Linking Only	-	8,041	14,820	14,753	-	-	-	-	-	-	-	-
watchepisodes1.com	WatchEpisodes	Linking Only	-	-	-	-	11,680	14,753	-	-	-	-	-	-
watchepisodes1.tv	WatchEpisodes	Linking Only	-	-	-	-	2,909	10,854	11,804	-	-	-	-	-
watch-episodes.tv	WatchEpisodes	Linking Only	-	-	-	-	-	2,042	9,882	12,363	-	-	-	-
watchepisodes.to	WatchEpisodes	Linking Only	-	-	-	-	-	-	1,254	6,555	12,458	12,244	-	-
watch-episodes.com	WatchEpisodes	Linking Only	-	-	-	-	-	-	-	-	1,908	6,355	8,594	-
watchepisodes1.to	WatchEpisodes	Linking Only	-	-	-	-	-	-	-	-	-	225	3,419	4,997
watchepisodes1.net	WatchEpisodes	Linking Only	-	-	-	-	-	-	-	-	-	-	993	1,569
watchepisodes.co	WatchEpisodes	Linking Only	-	-	-	-	-	-	-	-	-	-	-	2,372
filmesmegahd.net	FilmesMegaHD	Linking Only	2,260	1,974	1,103	1,447	1,194	2,294	3,266	1,687	2,242	2,232	1,750	1,593
comando-filmes.com	ComandoFilmes	Public P2P Portal	2,381	2,218	-	-	-	-	-	-	-	-	-	-
comandofilmeshd.com	ComandoFilmes	Public P2P Portal	-	860	2,664	1,944	2,027	4,319	4,222	5,710	-	-	-	-
comandofilmes.net	ComandoFilmes	Public P2P Portal	-	-	-	-	-	-	420	1,885	3,623	5,427	6,734	5,482
treetorrent.com	TreeTorrent	Public P2P Portal	3,472	-	-	-	-	-	522	581	-	-	-	-
warezmovie.net	WareZMovie.net	Public P2P Portal	12,606	16,651	19,659	-	-	-	-	-	-	-	-	-
warezmovie.com	WareZMovie.net	Public P2P Portal	-	3,586	4,984	5,538	-	1,100	-	-	-	-	-	-

Wave 4

The list below includes the usage of all sites and their associated domains targeted by the Wave 4 site blocks in January 2016.

Domain	Name	Category	Nov 15	Dec 15	Jan 16	Feb 16	Mar 16	Apr 16	May 16	Jun 16	Jul 16	Aug 16	Sep 16	Oct 16
demonoid.ph	Demonoid	Public P2P Portal	2,683	2,683	-	-	-	-	967	672	-	-	-	-
demonoid.pw	Demonoid	Public P2P Portal	2,791	2,858	2,813	1,877	1,561	2,768	2,262	1,530	-	-	5,383	4,418
demonoid.cc	Demonoid	Public P2P Portal	-	-	-	-	-	-	-	-	-	-	-	1,016
dnoid.me	Demonoid	Public P2P Portal	-	-	-	-	-	-	-	-	-	-	-	956
torrentdownloads.me	Torrent Downloads	Public P2P Portal	16,752	24,766	16,356	9,595	6,438	-	-	-	-	-	-	8,210
torrentz.eu	Torrentz	Public P2P Portal	115,659	-	60,475	-	-	-	-	-	-	-	-	35,166
torrentz.ch	Torrentz	Public P2P Portal	-	-	-	-	-	1,028	1,342	523	1,116	1,110	-	-
torrentz.me	Torrentz	Public P2P Portal	-	-	-	-	-	1,089	1,036	-	644	636	-	-
torrentz.com	Torrentz	Public P2P Portal	-	1,396	-	-	-	-	-	-	-	-	-	6,194
torrentproject.se	TorrentProject	Public P2P Portal	7,532	17,181	16,822	-	-	-	-	-	-	-	-	7,127
rlsbb.com	RlsBB	Linking Only	-	-	-	-	-	-	-	-	-	1,522	1,919	-
couchtuner.ch	Couchtuner	Linking Only	-	955	983	-	-	-	-	-	-	-	-	-
baixedetudo.net	Baixedetudo	Public P2P Portal	-	-	-	-	-	-	-	-	443	469	429	-
sobaixar.com	SoBaixar (Baixeturbo)	Linking Only	-	2,919	2,714	1,553	1,307	1,784	1,547	2,421	2,111	1,203	1,947	1,652
estrenosdtl.com	Estrenosdtl	Public P2P Portal	2,000	-	-	-	-	-	-	-	-	-	-	-
themediafire.biz	TheMediaFire	Public P2P Portal	-	1,127	1,553	-	-	-	-	-	-	-	-	-
themediafire.net	TheMediaFire	Public P2P Portal	-	-	-	-	472	887	1,496	1,850	1,882	1,807	1,811	1,235
puxandolegal.org	PuxandoLegal	Linking Only	-	-	-	-	-	377	398	328	-	283	273	-
putlocker.is	Putlocker (.is)	Linking Only	47,076	48,546	42,310	-	-	-	-	-	-	-	-	-
watchfree.to	WatchFree.to	Linking Only	-	7,327	7,476	-	-	-	-	11,264	11,596	10,342	12,759	16,746
putlocker.com	WatchFree.to	Linking Only	3,508	3,441	3,049	2,501	1,904	1,678	2,073	2,267	1,832	1,052	1,113	1,910

Wave 5

The table below includes the usage of all sites targeted in the February 2016 Wave 5 blocks.

Domain	Name	Category	Nov 15	Dec 15	Jan 16	Feb 16	Mar 16	Apr 16	May 16	Jun 16	Jul 16	Aug 16	Sep 16	Oct 16
filmix.net	Filmix	Linking Only	2,824	7,310	8,495	5,472	-	-	-	-	-	-	-	-
megashare.sc	Megashare	Linking Only	9,260	6,911	5,746	-	5,040	-	-	-	-	-	-	-
kino-live.red	Kino-Live	Linking Only	2,889	4,757	4,444	2,762	1,442	-	-	-	-	-	-	-
yify-torrent.org	Yify-torrent.org	Public P2P Portal	6,912	10,256	13,457	8,296	5,421	-	-	-	-	-	-	-
verfilmesonlinehd.com	VerFilmesOnlineHD	Linking Only	-	3,340	2,841	1,689	1,541	1,092	773	1,143	909	-	-	-
assistirfilmeshd.org	VerFilmesOnlineHD	Linking Only	-	-	-	-	-	-	-	181	676	5,537	9,333	7,667
filmesonlinegratis.com	FilmesOnlineGratis.com	Linking Only	3,070	3,121	4,696	5,870	4,149	4,215	2,257	1,927	1,555	1,683	1,520	1,298
megaboxfilmesonline.com	MegaBoxFilmesOnline	Linking Only	-	2,543	4,498	3,527	3,292	4,137	2,872	2,240	2,081	2,486	3,018	1,650
kino-live2.org	Kino-Live2.org	Hosting	3,220	7,358	4,752	1,299	-	-	-	-	-	-	-	-
123movies.to	123Movies	Linking Only	2,025	2,655	3,411	4,630	3,373	-	-	-	-	-	-	-
123movies.ru	123Movies	Linking Only	-	-	-	-	-	-	-	348	334	-	-	2,128
f9movies.com	123Movies	Linking Only	-	-	-	-	-	-	-	365	438	-	-	-
123movies.cz	123Movies	Linking Only	-	-	-	-	-	-	-	-	-	-	733	1,744
niter.co	Niter	Hosting	-	2,363	2,308	1,735	-	588	-	609	-	-	-	-

Wave 6

The table below includes usage for all Wave 6 sites which were blocked in Portugal during March 2016.

Domain	Name	Category	Nov 15	Dec 15	Jan 16	Feb 16	Mar 16	Apr 16	May 16	Jun 16	Jul 16	Aug 16	Sep 16	Oct 16
eutorrents.to	Cinemas (EUTorrents)	Public P2P Portal	-	1,726	1,936	3,477	2,004	-	-	-	-	-	-	-
onlyf.ws	OnlyFilms	Linking Only	-	-	1,789	1,127	1,108	-	-	-	-	-	-	-
btstor.cc	BTScene	Public P2P Portal	2,085	2,667	7,897	4,223	-	-	-	-	-	-	-	-
btstor.cc	BTScene	Public P2P Portal	-	-	-	-	1,067	-	-	-	-	-	-	-
degraca.org	DeGraca (Degraçaimaisgostoso)	Linking Only	-	-	1,620	1,570	2,057	-	-	-	-	-	-	-
yesfilmes.org	YesFilmes	Linking Only	3,612	2,215	2,104	1,828	1,221	1,257	725	667	971	706	781	888
seventorrents.xyz	SevenTorrents	Public P2P Portal	-	3,284	4,710	5,898	-	-	-	-	-	-	-	-
seventorrents.one	SevenTorrents	Public P2P Portal	-	-	-	-	1,725	-	-	-	-	-	-	-
7torrents.one	SevenTorrents	Public P2P Portal	-	-	-	-	-	369	369	-	-	-	-	-
seventorrents.blue	SevenTorrents	Public P2P Portal	-	-	-	-	-	-	238	328	-	-	-	-
seventorrents.top	SevenTorrents	Public P2P Portal	-	-	-	-	-	-	-	-	-	157	-	-
streamallthis.is	StreamAllThis	Linking Only	-	-	1,847	-	-	-	-	-	-	-	-	-
kkiste.to	KKiste (Kinokiste)	Linking Only	2,326	2,210	2,384	1,980	-	-	-	-	-	-	-	-
torrentrapido.com	TorrentRapido (Download-ak)	Public P2P Portal	-	2,381	1,699	-	-	721	608	-	-	-	-	-
torrentrapido.org	TorrentRapido (Download-ak)	Public P2P Portal	-	-	-	-	-	-	-	112	-	-	-	-
downloadsetorrents.com	TorrentRapido (Download-ak)	Public P2P Portal	-	-	-	-	-	-	-	-	-	-	291	-
sempretorrents.org	TorrentsGratis	Public P2P Portal	-	-	745	663	-	-	-	-	-	-	-	-
torrentsgratis.com	TorrentsGratis	Public P2P Portal	-	-	-	-	-	-	-	232	349	893	880	-
torrentsgratis.net	TorrentsGratis	Public P2P Portal	-	-	-	-	-	-	-	-	242	263	-	-
torrentsgratis.org	TorrentsGratis	Public P2P Portal	-	-	-	-	-	-	-	-	-	-	144	141
filmesetorrent.net	FilmesTorrent	Public P2P Portal	-	-	2,155	1,680	-	513	401	469	626	-	399	410
ymka.tv	Ymka	Linking Only	-	1,772	1,589	-	-	-	-	-	-	-	-	-
2ddl.net	Twoddl	Linking Only	1,648	4,120	4,934	3,290	-	-	-	-	-	-	366	1,927
2ddl.download	Twoddl	Linking Only	2,841	-	-	-	-	-	-	-	-	-	-	-
2ddl.co	Twoddl	Linking Only	-	-	-	1,115	1,735	-	-	-	-	-	-	-
twoddl.org	Twoddl	Linking Only	-	-	-	-	857	1,814	1,487	-	-	-	-	-
2ddl.cc	Twoddl	Linking Only	-	-	-	-	-	431	1,679	2,367	-	-	-	-
2ddl.ag	Twoddl	Linking Only	-	-	-	-	-	-	230	1,034	2,006	2,468	2,419	4,001
twoddl.eu	Twoddl	Linking Only	-	-	-	-	-	-	382	569	599	-	-	963
2ddl.link	Twoddl	Linking Only	-	-	-	-	-	-	-	254	-	-	-	-
2ddl.online	Twoddl	Linking Only	-	-	-	-	-	-	-	-	-	678	1,176	1,360
twoddl.link	Twoddl	Linking Only	-	-	-	-	-	-	-	-	-	-	916	4,926
vegasfilmes.com	VegasFilmes	Linking Only	-	1,563	1,124	2,392	2,043	2,736	448	319	-	-	224	-
allfilmsonline.cc	AllFilmOnline	Linking Only	-	3,848	7,327	-	-	-	-	-	-	-	-	-
allfilmsonline.ws	AllFilmOnline	Linking Only	-	6,695	1,688	-	-	-	-	-	-	-	-	-
allfilmsonline.co	AllFilmOnline	Linking Only	-	-	-	-	-	-	-	301	684	635	514	-
piratetorrents.net	PirateTorrents.net	Public P2P Portal	2,991	2,628	2,160	1,531	1,296	1,021	-	-	1,582	2,042	-	-
subsmovies.com	SubsMovies	Linking Only	-	1,667	1,869	1,836	3,369	1,227	2,372	2,719	2,288	1,992	2,529	3,101
movie25.sr	Movie25.sr	Linking Only	-	891	830	1,016	-	-	-	-	-	-	-	-
watchmovie25.ac	Movie25.sr	Linking Only	-	-	-	-	-	-	-	-	-	-	574	-
projectfreetv.ws	Projectfreetv.ws	Linking Only	2,276	2,326	2,732	2,089	-	-	-	-	-	-	-	-
theprojectfreetv.net	Projectfreetv.ws	Linking Only	-	-	-	-	-	-	112	167	-	-	-	-
watchprojectfree.net	Projectfreetv.ws	Linking Only	-	-	-	-	-	-	475	-	-	-	-	-
seriefilmes.com	SFDownload.net (SerieFilmes.com)	Public P2P Portal	-	-	-	-	2,069	1,350	1,261	887	923	722	-	-
sfdownload.net	SFDownload.net (SerieFilmes.com)	Public P2P Portal	-	-	-	-	-	-	-	-	-	298	749	1,401

Wave 7

The wave 7 sites were blocked with an expected ISP implementation date of April 2016.

Domain	Name	Category	Nov 15	Dec 15	Jan 16	Feb 16	Mar 16	Apr 16	May 16	Jun 16	Jul 16	Aug 16	Sep 16	Oct 16
superfilmeshd.tv	FilmesOnlineBR	Linking Only	-	-	-	-	9,917	10,779	17,959	29,213	-	-	-	-
melhores torrent brasil.com	MelhoresTorrentBrasil	Public P2P Portal	-	2,430	2,485	-	-	-	-	-	-	-	-	-
onlinehdmovies.org	OnlineHDMovies	Linking Only	-	-	1,404	1,182	-	-	-	-	-	-	-	-
alfafilmesonline.com	AlfaFilms	Linking Only	-	-	-	-	10,575	8,207	3,918	3,215	1,614	1,560	2,098	2,292
assistirseriesonlineDubladas.com	AssistirSeriesOnlineDubladas	Linking Only	-	-	-	-	2,887	1,184	710	338	-	-	-	-
cinemainterativo.com	CinemaInterativo	Public P2P Portal	-	-	-	-	13,575	16,064	10,094	9,569	6,923	8,179	7,541	4,721
filmesonlineX.net	FilmesOnlineX	Linking Only	-	-	-	-	59,373	50,008	15,487	10,366	8,754	7,697	7,060	2,541
seriesonlinevip.org	SeriesOnlineVIP	Linking Only	-	-	-	-	30,912	30,187	16,087	14,071	13,159	8,871	10,435	-
seriesonlinevip.com	SeriesOnlineVIP	Linking Only	-	-	-	-	-	-	-	-	-	585	1,383	993
seriesonlinehd.org	SeriesOnlineHD	Linking Only	-	-	-	-	31,207	28,570	17,817	15,315	15,362	11,091	9,220	7,719

Wave 8

The wave 8 sites are included in the table below. Sites in the group were blocked during June 2016.

Domain	Name	Category	Nov 15	Dec 15	Jan 16	Feb 16	Mar 16	Apr 16	May 16	Jun 16	Jul 16	Aug 16	Sep 16	Oct 16
justfilmeseseriados.info	Justfilmeseseriados	Linking Only	-	-	-	942	1,764	1,312	511	-	-	-	-	-
justfilmeseseriados.me	Justfilmeseseriados	Linking Only	-	-	-	-	-	-	-	-	-	174	210	-
cubodown.me	CuboDown	Linking Only	-	-	-	-	-	-	143	291	224	-	-	-
maxfilmesonline.net	MegaFilmesHD21 (MaxFilmesOnline)	Linking Only	4,182	4,221	3,473	3,592	3,048	2,713	2,548	4,710	3,032	1,808	1,449	1,780
thepiratefilmes.com	ThePirateFilmes	Public P2P Portal	-	-	-	-	5,117	1,395	1,043	883	1,080	-	-	-



