OffShore hosting, legitimate use of an ASN or a subterfuge?
IGF 2022, 29th Nov

Lee Kent
beIN Sports Media Group
AAPA’s approach is to lead efforts to tackle piracy across Europe, the Middle East and beyond through facilitating collaboration amongst members. With experienced, focussed Working Groups key issues and solutions are identified and opportunities to raise awareness with effective communications to discourage piracy are pursued. AAPA lobbies for better anti-piracy legislation and enforcement and builds and sustains private and public partnerships to achieve more efficient and effective enforcement.
Introduction

• The hosting provider landscape continues to evolve and has become proliferated with companies using the term “offshore” hosting.
• AAPA aims to highlight that many of these companies have become synonymous with cybercrime activities. Promoting safety for illicit activities in the knowledge they do not have to comply with national or international laws
• However, what does that mean?

I’m going to talk about what off-shore hosting means for the audio-visual industry, describe the typical structure (as seen by the audio-visual industry), and the challenges with off-shore hosting

At the end of this presentation, I’d like your thoughts:
1. Is the structure off-shore hosting legitimate?
2. Or deliberately establish to facilitate criminality?
The structure of an offshore host

- They don’t appear to own any physical hardware
- Fake or questionable HQs in countries where there is poor Intellectual Property legislation
- Lease IPs from outside the ASN-registered territory
- Have interconnection/rent servers with the UK, EU and US
RIPE ASN
HQ in Hong Kong
IPs from Seychelles
Renting servers in the Netherlands

BENEFITS OF OFFSHORE HOSTING

GREAT OFFSHORE LOCATION

Hosting in the Netherlands allows for more freedom of content and speech. Main rules being no childporn, malicious scripts/pages or SPAM on the network, almost all other content is allowed. Abuse and DMCA messages will be forwarded to the client for resolution but in most cases action is not required.

Standard Features include cPanel control panel, Litespeed powered webserver, optimal php5/mysql5, all standard cPanel features, softaculous, cloudflare and more.
What are the benefits to Offshore hosting? These are some examples:

- Promoting DMCA notices will not be actioned
- Supporting illicit IPTV

https://www.vondranlegal.com/what-is-iptv-and-why-are-the-xstream-codes-raid-important
Offshore hosting providers are organised with many different company names using the same ASN. This is facilitated by Local Internet Registrars:

- Host company 1 applies for an ASN via LIR.
- Once assigned an ASN and IP addresses, Host 1 shares the ASN with several other company names.
- Researching each of the hosting company names identifies they are peered with one another. However, Host 1 maintains the upstreaming interconnections.
Addressing the issue of infringement:

How does the audio-visual industry approach offshore hosting companies:
• For infringing content, DMCA notices are sent to the email addresses registered with the RIR
• Outreach to the hosting company using all registered email addresses and physical addresses
• The last resort is legal action

DMCA Takedown:
request by the owner of the content against a website owner and/or an Online Service Provider (e.g. ISP, hosting company etc.) to remove/block access to infringing content.

The DMCA Takedown is a well established and accepted internet standard followed by website owners and internet service providers everywhere.
The challenges:

• DMCA notices go unanswered
• Websites don’t have a contact page
• Company addresses are fake or PO boxes
• Legal recourse is difficult or impossible due to local legislation or because the owners of the hosting company cannot be traced
Why is this an issue for the audio-visual industry:

- During the first 6 months of the football season, only 10% of the DMCA notices sent to one offshore hosting company were actioned
- There is no repeat infringer policy
- Outreach is ignored and legal action cannot be taken because no one knows where this company is or who the owners are

- One company hosts almost 50% of a broadcaster’s infringing streams
- 90% were ignored
Other consumer harms

The consumption of infringing content exposes end users to other cyber risks

40% of piracy consumers have their equipment infected with Virus and Malware.

7% of consumers who don’t consume piracy have their equipment infected.

49% of piracy consuming households have experienced at least one Virus and Malware attack on their equipment.

Source: Digital Citizens Associations Report (USA) 2019

Source: Cyber Readiness Institute Report (USA) 2020
What can the audio-visual industry do?

• If all reasonable steps have been taken to address issues directly with the hosting company and its subsidiaries, what does a content owner do?
• Within the ecosystem who has responsibility?
• How can these issues be escalated?
A call to action!!!

• AAPA will seek to understand:
  • The IGF’s view on the practices of offshoring hosting
  • Are they abusing the allocation of ASNs?
  • Do RIRs or other intermediaries have the tools to take action?
  • How can the audio-visual industry work with RIRs and IGF stakeholders to tackle offshore hosting providers who abuse the system?