

IRDETO PIRACY CONTROL & CYBERCRIME PREVENTION

An end-to-end suite of services for brand and revenue protection

Online piracy is big business. This global threat does not discriminate: affecting operators, studios or sports rights owners. The proliferation of broadband access and the ever increasing sophistication of pirates mean you need proactive, flexible and responsive services to protect your brand and revenue from the evolving business threats.

THE CHALLENGE

Pirated content is more prolific and appears online faster than ever before. And piracy is evolving. With broadband access becoming more readily available and the rapid global expansion of new devices as well as plug-ins, it is easier than ever for your content to be pirated. As a result, online piracy is moving away from control word sharing to today's biggest threat: content redistribution over the internet.

What's more, many pirate services have professional looking websites. They offer a 'plug & play' philosophy with support and money back guarantees. Pirate subscriptions are packaged to appeal to specific markets; e.g., Expat or ethnic groups. And as the pirate service amalgamates pay TV channels, movie libraries and sports they often offer far more content, at a cheaper price, than standard legitimate subscriptions. In addition, the pirate business models are becoming

more sophisticated. Advertising revenue based stream distribution on the open internet is given way to selling dedicated pirate OTT devices such as STBs, OTT plugins and apps with the subscriptions. This allows the pirates to generate money from the sale of the pirate devices as well as ongoing subscription revenue.

The challenge for the operators, studios and sports rights owners (providers) is twofold: to ensure return on investment for their assets and protect their brand reputation. This is particularly the case when it comes to premium content, such as the latest movie releases or live sports, as the cost of procuring rights continues to soar. The added dynamic with live events, especially sports, is that the value of the content is high before and during the event but diminishes once the game is over. For content owners, this is an emerging threat affecting loss of revenue as these alternative sources are diluting the value of the content. From a brand perspective, a compromised platform can cause content owners to lose confidence and revoke content licenses and customers to question why they need to subscribe to a providers' service when it is available by other cheaper means or even for free.

To protect future revenues, the providers' approach needs to evolve in line with the changing market dynamics. In today's world, any legitimate insecure device can be abused for piracy, and pirated services can be streamed from anywhere on the internet. Many successful providers have realized that fighting online piracy requires more than just technology alone. Services are essential to combat new and emerging piracy threats. Being able to detect, analyze and counter all types of piracy affecting on-demand and live real-time content is more essential than ever.



BENEFITS

In safe hands

By leveraging the specialists within the global Irdeto team, providers have an efficient and effective way to scale up, to address the source of piracy not merely the symptoms. The background of the team of experts varies from trained investigators; legal and law enforcement; cryptography and analysts covering technical, network, social media and security processes as well as ISO certified security auditors. They are trained professionals who have a proven track record in successfully identifying, analyzing piracy threats and ensuring rights enforcement. Complementing existing internal activities or provided in its own right, the Irdeto suite of products and services ensures that providers are well equipped to fight the different and emerging piracy threats across all platforms.

Protection across the value chain

Pirate businesses are highly complex networks; often bringing together people from across the world to commit criminal activities. The extent of the pirate activities stretches across the value chain from production, content theft, distribution and promotion, to consumer and commercial subscriptions. With Irdeto's comprehensive suite of products and services, providers are able to fight piracy from end-to-end with a trusted global partner.

Safeguards valuable assets

Content redistribution over the internet is seen to be the biggest threat today. The rising cost of securing licensing rights combined with technical advancements that make it easier for consumers to watch pirated

services, means it is essential to providers to protect their valuable assets against online piracy. With Irdeto, providers are able to leverage patented, scalable watermarking detection technology as well as benefit from a suite of piracy control services designed to rapidly identify and disrupt all types of piracy. As an active provider of products and services against content redistribution, Irdeto is familiar with the evolving piracy landscape and has a proven track record in helping providers protect their brand and revenue streams against online piracy.

Control risks and costs with a tailored service

The battle-lines against online piracy differ for each provider, for instance, content leakage during production phases, control word sharing on broadcast networks and illegal content redistribution on the internet. As one size does not fit all, Irdeto offers a suite of state-of-the-art technology, best practices and extensive services to address the provider's unique needs. This approach ensures that the provider is able to minimize risks while maintaining cost predictability with a managed service based approach.

Detailed reporting increases business responsiveness

All the reporting information is easily accessible via the online interactive portal. It provides users with graphical and detailed visibility into and control over their anti-piracy activities. The intuitive portal provides a comprehensive view of their data, allowing users to instantly drill down to see the details such as information about detection rates, enforcement activities and compliance metrics. Being able to analyze, predict and improve end-to-end performance results in an increased time-to-market.



A COMMON ENEMY

We are facing a wave of online piracy, bigger than we've ever seen before. This is a growing pandemic problem affecting operators, studios and sports rights owners across the world.

The highly complex and extensive pirate businesses include illegal activities that stretch across the value chain. It's clear when you see the pirate value chain (Figure 1) below that the example activities clearly highlight the extent of the problem.

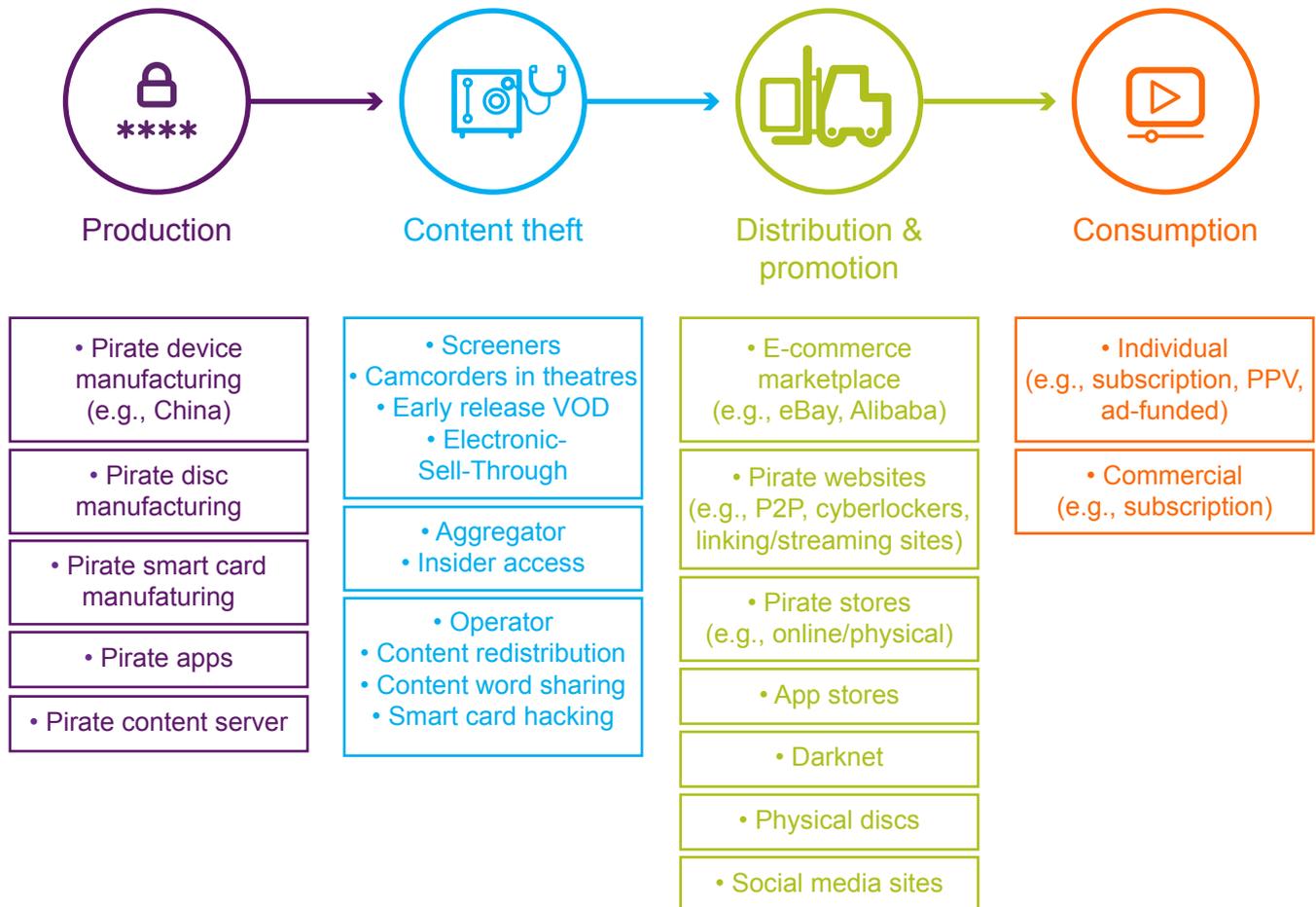


Figure 1: The pirate value chain

Whether you're an operator, studio or sports rights owner there is a common enemy: online pirates.



Figure 2: Irdeto's Piracy Control & Cybercrime Prevention suite of solutions and services

ONLINE PIRACY DETECTION & ENFORCEMENT

Arguably the most important task in the fight against piracy is the identification of illegal activity and pirated content. This is crucial to revenue and copyright protection. The key for detection is to use an intelligence based approach. This ensures that you focus on the sites with the highest volumes and the sites which are most popular for that particular content or country. With Online Piracy Detection, the Irdeto team of experts uses a combination of fingerprinting technology and sophisticated automation tools to monitor various modes of online media distribution and locate a provider's copyrighted content. A wide array of sites is checked, including link aggregation, live streaming and torrent sites as well as web video and cyberlockers.

Irdeto uses a combination of a highly scalable automated platform with the right amount of human verification to ensure rapid, cost-effective execution of the service to maintain quality of service (QoS) and outstanding customer service management. The approach used varies depending on the content. For instance, a live sports event is treated differently to a newly released movie. For live sports speed is critical because the value of the live sports diminishes during the game therefore upfront planning and highly available platform which is capable of real-time processing of hundreds of pirate streams is key to a swift response. Irdeto has pioneered a service to quickly detect retransmissions and enforce live broadcast rights for

some of the world's largest sports franchises and pay-per-view event producers in order to protect the short and highly valuable monetization window of live events.

When unauthorized copies of content are discovered online, take down or Digital Millennium Copyright Action (DMCA) notices are sent to host sites. The purpose of which is to remove the infringing content. The ultimate aim is to disrupt the piracy so that the illegal viewers is frustrated and returns to a legitimate platform to continue watching their chosen content.

Fast and effective enforcement is guaranteed through the strong relationships Irdeto has established with hosting sites and ISPs globally to quickly remove infringing content from the public domain. Where required, using the latest intelligence gathering and investigation capabilities to find the people behind the pirate organization Irdeto collects evidence to help operators or content owners prepare and support legal prosecution of repeat offenders in order to permanently disrupt content supply chains. Irdeto has a proven track record in identifying, investigating and supporting providers in civil and criminal prosecutions; with recent successful activities resulting in police raids and referrals.

TRACEMARK

To advance the fight against content redistribution piracy, Irdeto offers forensic watermarking. Dependent on the use case, different types of watermarking are provided. Watermarking for content owners to identify the weak link in their distribution channels. Session-based watermarking for broadcast and OTT operators to trace pirated content back to specific individuals who illegally redistribute the content and take action against the individual including switching off their account. TraceMark forensic watermarking technology is based on a patented design that makes it ideal to support premium content such as early release and live sports, which require scale to support a large consumer base as well as being applicable for on-demand content.

Irdeto integrates watermark insertion into the provider's workflow for both live and on-demand content. Using Online Piracy Detection & Enforcement, the Irdeto experts are able to discover the illegal redistribution of the providers' content on the internet. The invisible embedded watermark enables the content to be identified, validated and confirms which distributor or end customer the content has been distributed from. The final step within the watermarking cycle is that Irdeto enables the provider to take both technical and legal measures to stop or counter the content redistribution piracy. Such measures are agreed with the providers in line with their own anti-piracy policies.

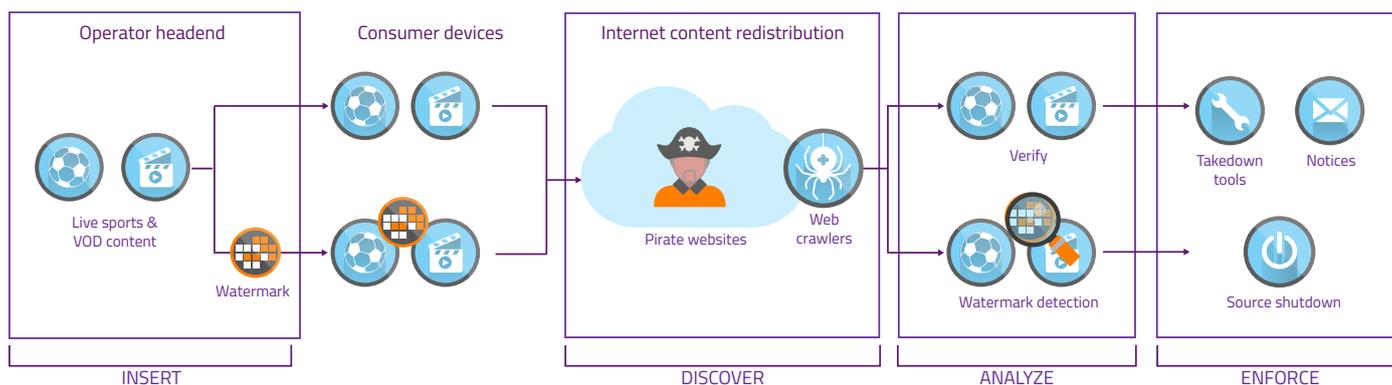


Figure 3: Irdeto Watermarking (Irdeto TraceMark™)

CONSUMER INSIGHTS

Piracy is not just a problem relating to criminal activity; piracy is often an indication of consumers frustrated by not being able to get the content they want in their region, for which they are willing to pay. Valuable insight into consumer demand can be gained from monitoring file sharing activity on peer-to-peer networks to help content owners, broadcasters and operators make content investment decisions that will maximize their ROI. Irdeto Consumer Insights is a managed service that gives providers the insight into P2P piracy in order to decide what content to offer in a region, and how much that content is worth.

With Irdeto's Consumer Insights capabilities such as Download Population Measurement, providers can gain a global understanding of content consumption patterns. Knowing what consumers want and what type of piracy is prevalent in specific regions can help providers decide on their service offering strategy alongside any piracy prevention action. With Consumer Insights providers can market to disrupted illegal viewers and re-engage them with legitimate services, be it broadcast or over-the-top.

ONLINE BRAND PROTECTION

Pirate activity extends beyond just content theft. Pirates and cybercriminals continue to abuse legal brands through a combination of tactics such as unauthorized use of their name, logo and other information in advertisements, apps or on illegal sites. Protecting the brand reputation, as well as revenue and content, online is now an essential part of a complete anti-piracy program.

There are two challenges when it comes to online brand protection: detecting instances of misuse and being able to respond effectively. Irdeto's powerful combination of a holistic services approach and sophisticated monitoring and threat detection technology ensures that providers' brand is protected through continual monitoring of the internet, Dark Net, app stores, e-commerce sites and social media. Once identified, working with our network of partners including law enforcement, industry bodies and agencies as well as consumer and technology partners, Irdeto's team of experts are able to quickly remove the infringing material. As this is a global problem, providers' benefit from the worldwide service that includes a successful proven track record in the China market; with Irdeto being the first to secure a partnership with Alibaba – the world's largest e-commerce site.

Irdeto's Online Brand Protection service safeguards the providers' online brand reputation by preventing pirates and cybercriminals exploiting the legitimate brand for their own gain.

CYBERCRIME INTELLIGENCE

Irdeto's Cybercrime Intelligence service helps protect the investment and rights of content owners, broadcasters and operators by gathering and analyzing online intelligence regarding threats to their business.

Using a combination of automated tools and expert interaction this data from monitoring the web and Dark Net is gathered. Data are then analyzed and assessed in line with the specific requirements of the customer. With Irdeto Cybercrime Intelligence, service providers receive actionable insight into threats to their business including content, technology, brand and people. Armed with this intelligence, threats can be prioritized and mitigation actions taken to ensure that revenue and the business are protected.

CYBER INVESTIGATION & ENFORCEMENT

Criminals are taking advantage of the speed, convenience, accessibility and most importantly the anonymity of the internet to commit a range of crimes. And it is not just external agents which businesses need to protect against. There are increasing reports that malicious insiders are a growing source of cybercrime. For content owners, broadcasters and operators to

protect their investments it is essential that they are able to unmask the digital criminal in order to map them to a real person, wherever they are active in the pirate value chain. It relies on the expertise, knowledge and experience of trained investigators aligned with local law enforcement activities. The added complexity here is that pirates are increasingly operating on a global scale.

Irdeto is well placed to support the provider in this endeavor. With a multi-disciplined team of specialists based around the world, the Irdeto experts have experience in complex piracy, cybercrime and fraud investigations and prosecutions. What's more, Irdeto has strong cooperation with anti-piracy forums; law enforcement; standardization bodies and local/global ISPs to enable thorough and swift piracy and cybercrime investigations.

Irdeto's Cyber Investigation & Enforcement service helps protect the investment and rights of the providers' by gathering evidence of suspected audiovisual piracy, internal fraud/theft and cybercrimes to support customer enforcement activities (civil & criminal) to mitigate these threats.



SUMMARY

With the advances in broadband access and the increasing sophistication of pirates, online piracy is now a global issue. And the biggest threat to operators, studios and sports rights owners is content redistribution over the internet, particularly related to premium content such as live sports or newly released movies. In order to fight piracy, providers need to team up with a trusted partner who has the in-depth understanding of piracy and cybercrime dynamics and the technical know-how to implement countermeasures.

Irdeto, with its global team of multi-discipline specialists and its proven methodology has a successful track record in rapidly identifying, disrupting piracy and leveraging its established networks to track down pirates and their supply chains. This combined with Irdeto's world renowned content protection solutions mean that Irdeto is well placed to be the trusted security partner of choice.

The Irdeto suite of Piracy Control & Cybercrime Prevention services and solutions puts the provider in the driving seat to protect their brand reputation and revenue.

In this case, 1 (Provider) + 1 (Irdeto), really does equal 3.

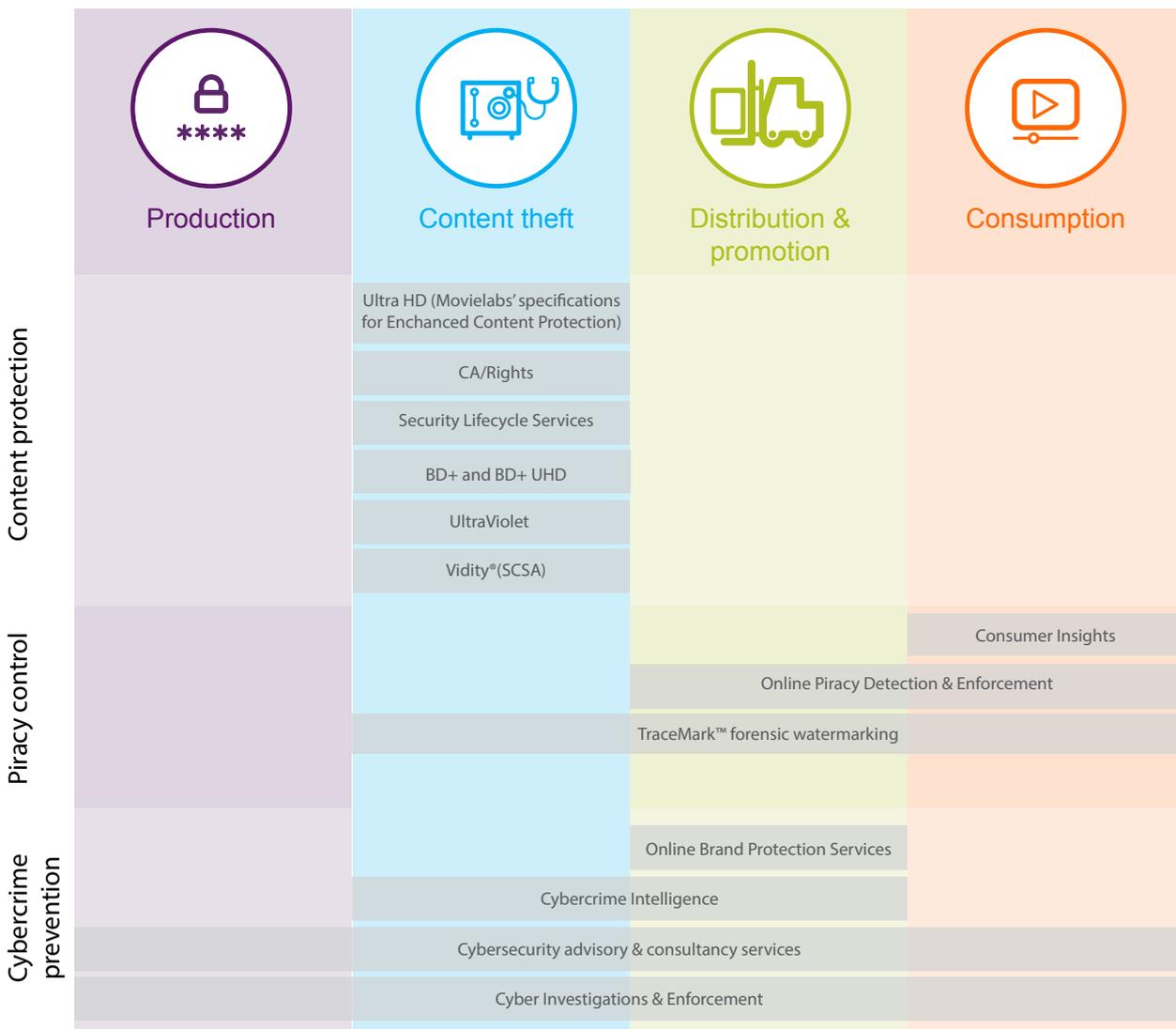


Figure 4: End-to-end solutions and services for operators, studios or sports rights owners

Irdeto 360 Security, a portfolio of services, enables operators, studios and sports rights holders to rapidly and cost effectively evolve protection of their media services and business models. It provides unparalleled breadth and depth to meet changing security needs, from content protection, to piracy control and cybercrime prevention, to key management by a trusted authority. Its proven success comes from the combined power of innovative technology, a diverse team of experts and a global network to deliver best security practices.