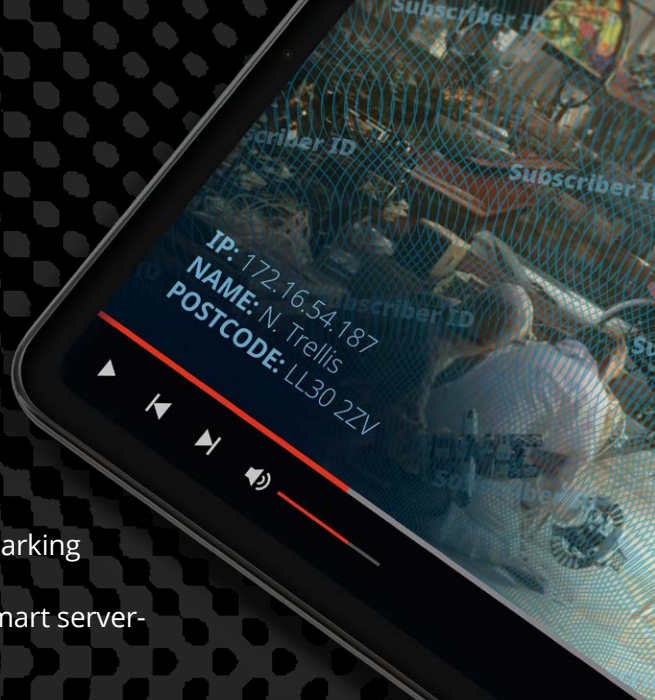


4th Generation ASiD

New and Enhanced Advanced Subscriber Identification

4th Generation ASiD is a complete suite of advanced forensic watermarking and content monitoring solutions designed for real-world anti-piracy. This latest release of ASiD — the world's most widely deployed and actively used subscriber-level watermarking for both linear and on-demand content — includes significant enhancements and the addition of ASiD OTT Edge-switched, a smart server-side A/B variant watermarking solution.



ENHANCEMENTS

ASiD Embedded

- » Accelerated watermark generation in certain devices, especially those without functional FPUs
- » Optimisations to enable variable watermark parameters for different content types (UHD, HD, linear channels vs on-demand content, etc.) in a way that is CPU and memory efficient

ASiD OTT Client-composited

- » New collaboration mechanism between headend and client to take action on bad actors, with improved intelligence feedback
- » Expanded interoperability for multiple encryption modes
- » Higher precision of session identification
- » Stronger support for cloud PVR
- » Variable per-device watermark parameters for different content and playback types to enable optimised watermark compositing based on individual client devices' capabilities
- » Scalability enhancements for extremely large deployments into managed devices

NEW

ASiD OTT Edge-switched is the most recent extension of our suite of secure ASiD watermarking solutions, offering a smart A/B variant watermarking technology. This type of temporal watermarking based on our proprietary heritage algorithms works seamlessly with Friend MTS' content monitoring alongside other watermarking solutions, both distributor- and subscriber-level. In addition, ASiD OTT solutions share the **ASiD iQ piracy intelligence** offering a monitoring tool to identify and flag accounts used by bad actors.

Protection for Live and VOD

ASiD Embedded and OTT solutions are fully compliant with the MovieLabs Specification for Enhanced Content Protection, including 4K/UHD and HDR content. ASiD solutions provide equally robust protection against illegal redistribution of live and VOD content including high-profile sporting events and early release movies.

| | | ASiD Embedded | ASiD OTT Client-composited | ASiD OTT Edge-switched | |
|----------------|---------------------------|--|--|-----------------------------|-------------------------------------|
| Design | Optimised for | VOD Live | VOD Live | VOD Live ¹ | |
| Implementation | Delivery pipeline change | Not required | Not required | Required | |
| | Client-side modifications | Required | Required | Not required | |
| Performance | Watermark extraction | Seconds | Seconds | Minutes | <Minutes |
| | Robustness | More robust and adaptable to collusion attacks | More robust and adaptable to collusion attacks | Robust to collusion attacks | Faster, robust to collusion attacks |

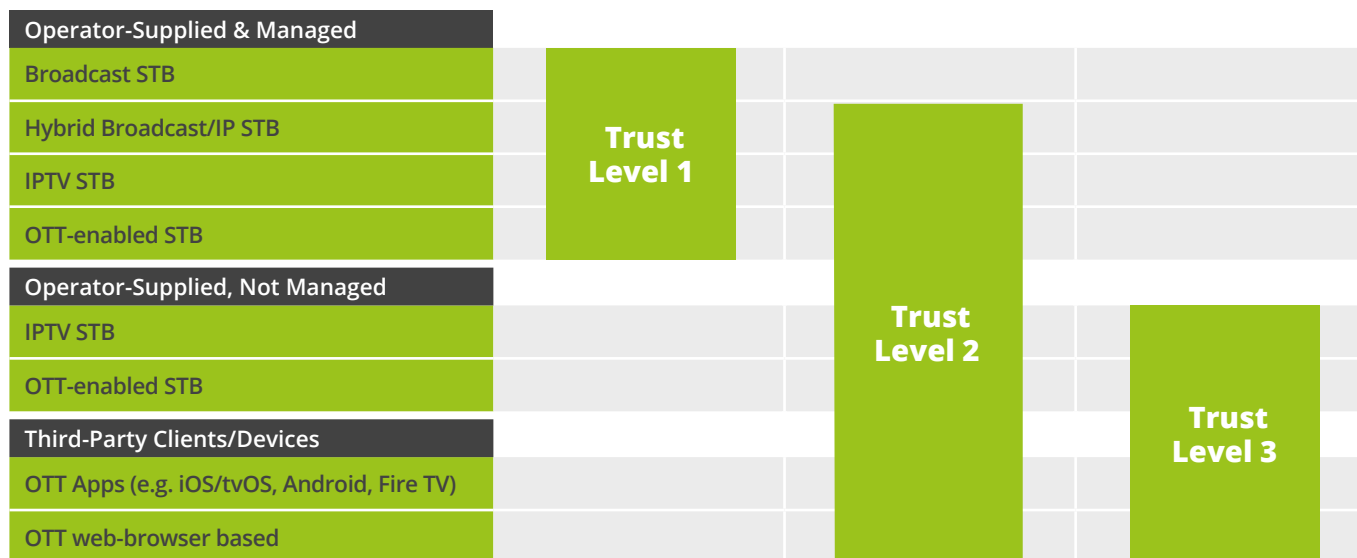
¹ Live: potential issues with watermark extraction (e.g. for protecting PPV, events) which is negatively impacted by low latency streaming protocols plus delay in extraction of the watermark's temporal sequence — consider Client-composited or Edge-switched with client library

Cover image source: frames from (CC) Blender Foundation | mango.blender.org

This image is fictional: subscriber watermark should never contain any private information related to the subscriber. This unique identifier is anonymous to any third party and can only be used by video service provider when piracy is confirmed.

Solutions for All Trust Levels

Trust Levels provide guidelines for broadcasters, content owners, and service operators to select the most appropriate and efficient ASiD watermarking technology. These levels are based on your perceived trust in the security of the device and delivery method of your content.



The 4th Generation of ASiD includes a watermarking solution for each Trust Level across all types of operator-managed, operator-supplied, and third-party clients/devices.

ASiD Embedded — client-generated watermark, client-composited

ASiD Embedded provides protection for content delivered to *Trust Level 1* devices (high security devices with high security delivery methods). With high trust placed on these delivery methods, watermark payload is generated and embedded by the client device.

ASiD OTT Client-composited — server-generated watermark, client-composited

ASiD OTT Client-composited provides protection for content delivered to *Trust Level 2* devices/clients (medium security devices/clients with medium security delivery methods). In order to protect the integrity of the watermark payload, additional server-side components are included as part of this watermarking solution. The server and client work together to facilitate secure generation and continual compositing of the watermark.

ASiD OTT Edge-switched — server-generated watermark, server-composited

ASiD OTT Edge-switched, an A/B variant watermarking technique, provides protection for content delivered to *Trust Level 3* devices/clients (low security devices/clients with low security delivery methods). Working seamlessly with other Friend MTS solutions such as **Distribution iD**, ASiD OTT Edge-switched offers faster watermark extraction when compared with other A/B variant offerings available in the market.

All three ASiD offerings combine seamlessly with Friend MTS' global monitoring services to form the market's leading end-to-end retransmission anti-piracy solution. In a mixed device environment (broadcast, managed and unmanaged OTT) a single extraction pipeline enables the most device-appropriate variety to be used in each case and still provide efficient overall protection.

ASiD iQ Piracy Intelligence

As an enhancement of the ASiD OTT offerings, ASiD iQ is a monitoring tool that gives access to telemetry and other metrics allowing the identification of subscription accounts used by bad actors. By utilising in-depth machine learning and big data analysis techniques to provide a detailed analysis of the common patterns of fraudulent behaviours, ASiD iQ enables service providers to take proactive anti-piracy countermeasures in real-time.

Contact us for a demonstration today
enquiries@friendmts.com

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www.friendmts.com