



TOLKA Watermark Solution

The increase of the web-based content distribution raises the risk of revenue loss due to illegal sharing, copy and re-distribution. In order to protect the valuable content, most conditional access systems allow Broadcasters to generate a secure link to grant content access between the head distribution to the individual Set-Top box.

Tolka Watermark is a software-based solution that addresses the needs of the broadcasters to protect the content from illegal usage and revenue losses. The development of elaborate watermarking techniques is important; Tolka Watermark utilises its patented technology, Digital Signature Engine (DSE), to insert an invisible digital signature at the final destination on the distribution path making each section of the content unique each time it is decoded.

The unique digital signature is associated with the specific device which will ultimately decode the content. The digital signature is able to encrypt within the content.

If suspected content proves to be an illegal copy made from a device on a DTH operator's network, Watermark can match the Digital Signature ID and the device associated with this signature on the network, thereby allowing easy and prompt identification of an illegal copy tracing the copied content to the device (eg: handheld, tablet, etc.) which decoded it.

System Benefits

- Lowest cost watermark solution in the market.
- Software-based solution, eliminates the need of per-unit hardware cost.
- Compatible with both STB and various smart devices.
- Simplified decoding and ease of implementation
- Watermark security is based on variety, the watermark changes over time making it harder to find and bypass.

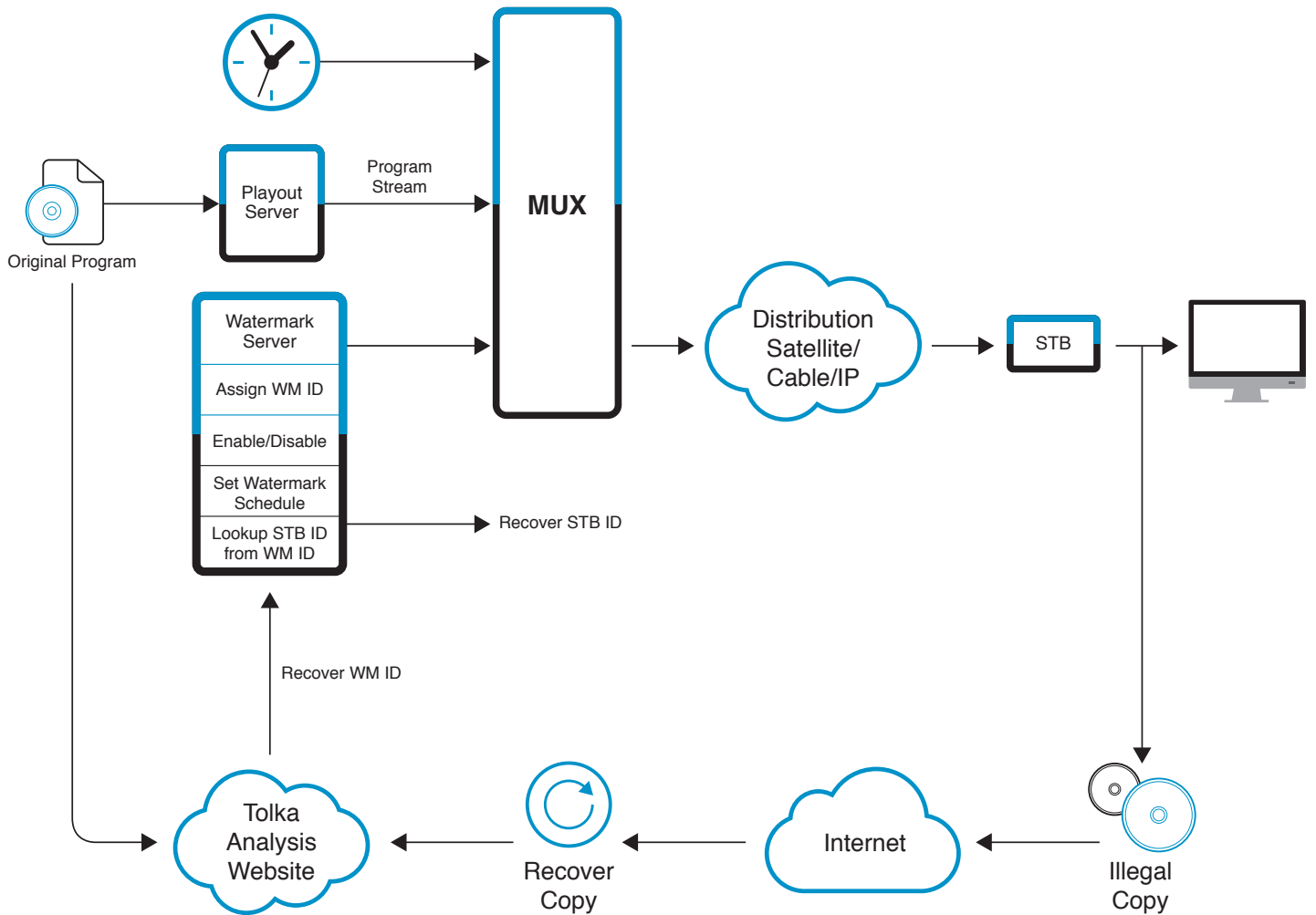
System Requirements

- Must have Tolka Watermark Server
- STBs must be enabled for Tolka Watermark
- Smart devices must use Tolka player
- Must have 25-50 kbps available in the distribution path to support watermark control.
- Watermark server must have internet access for registering smart devices.

System Functions

- Centralize server allows registration of STBs and smart devices; allows coordination with CA server.
- Centralize server assigns unique ID to each STB and smart device.
- Centralize server schedules variety in watermarking.
- At each path-point in the system where the program is decrypted, decoded and rendered for display, the unique watermark is added to the rendering.
- Watermark decoding web site allows submission of watermarked copy plus original source to recover ID of the device that produced the copy.
- Centralize server can recover the identity of the user responsible for the device that made the copy through the recovered watermark ID.
- Support smart device player - FFMPEG
- Watermark decode tool for matrix and luma sequential watermarking.
- Matrix, luma sequential and visible warning watermarks are set on the STB platform.

System Drawing



ADTH

For over 20 years, Atlanta DTH, Inc. has been a leading supplier of Cable and Satellite DTH communications equipment and an innovator of ground-breaking telecommunication systems for IPTV, OTT, DTT and other media related applications. Our solutions provide the tools for content broadcasters to expand their service offerings to existing and new customers allowing them to expand and develop their markets. We strive to meet the technological goals of our customers be it broadcast, telecommunications or IPTV markets.