



Multi-Level Content Security for DVB Set-top Boxes

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Verimatrix ViewRight STB for DVB (Digital Video Broadcasting) is a robust package of portable embedded code that implements the Verimatrix Video Content Authority System (VCAS™) for DVB security functions within each set-top box (STB) in a pay-TV system. The ViewRight STB code has been designed to require only a minimum of resources from the STB hardware and run-time environment and use a standardized set of simple interfaces to any STB control software and/or middleware.

In contrast to the legacy approach with its singular focus on hardware-based security, Verimatrix offers multi-level client security that can be mixed in the same broadcast network to match STBs with ARPU (Average Revenue per User) potential:

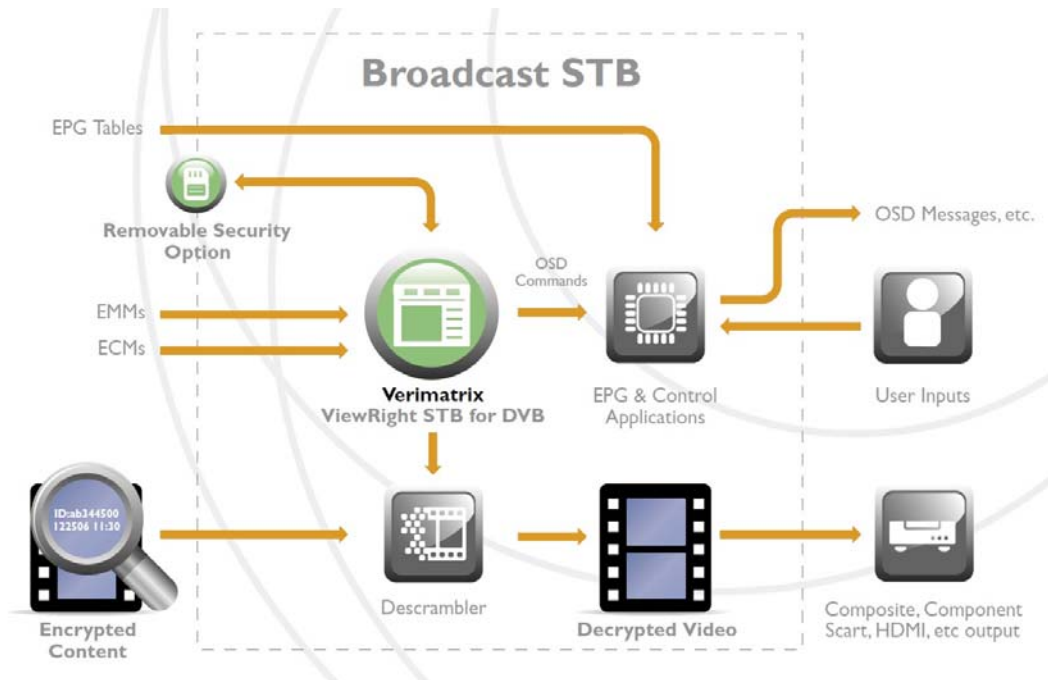
- Software clients for lower ARPU, one-way broadcast segments.
- Secure system-on-chip (SoC) clients for hardware-level security without card logistics.
- Smart card-based security for operators preferring removable security, including a DVB-CI (Common Interface) module.

The software-based client offers best-of-breed content and revenue protection in a hardened implementation that incorporates signing, multiple levels of integrity checking, obfuscation and other advanced security features such as control word and card sharing protection mechanisms.

The secure SoC client utilizes the advanced security features of modern and “Verimatrix-personalized” SoCs, such as secure boot, control word obfuscation, secure code execution, protected memory and encrypted data paths securing the video pipeline.

The smart card implementation utilizes a state-of-the-art chip together with an advanced client design incorporating passive, active and adaptive security features. This makes the client an elusive and moving target for potential hackers.

STBs equipped with software-based or secure SOC clients can be field modified to use smart card based security, if equipped with a card reader, by simply inserting the card.



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FEATURES

- **Basics**
EMM, ECM, OSD Messaging, (I)PPV, VOD (non-IP based)
ST, Broadcom, Fujitsu, Ali, NEC, Trident, Sigma, etc.
NXP (military grade)
Available from preferred vendor, others available after integration
- **STB Chipsets**
- **Smart Card Chip**
- **DVB-CI Module**
- **STBs**
Variety of DVB-C/S/S2/T/T2, ISDB-T and MMDS pre-integrated models, some ready for hybrid upgrade to IP networks.
- **Memory Footprint, SW-Based Client**
- **Supported Scrambling Algorithms**
500-750KB (depends on platform and security level)
DVB-CSA; also AES if supported by STB and headend MUX
- **Broadcast Support**
MPEG-2 Multi-Program Transport Streams (MPTS)

VCAS™3

Proliferation of Internet TV and mobile video access represents both a competitive challenge and a wide range of new opportunities for digital TV service operators. The Verimatrix VCAS 3 architecture offers security convergence that addresses this new marketplace with a proactive revenue security and enhancement approach targeted at Digital TV operators with IPTV, Hybrid or DVB broadcast network architectures. VCAS 3 integrates protection techniques for these managed networks with standards-based security for Internet TV delivery on PC, phone, tablet and STB devices. Whatever network transition challenges are in store for service operators, VCAS 3 can help them to optimize operational costs and cast an ever wider net with their service offerings.

Verimatrix - Beyond Content Protection to Revenue Security

Verimatrix specializes in securing and enhancing revenue for multi-screen digital TV services around the globe. The award-winning and independently audited Verimatrix Video Content Authority System (VCAS™) and ViewRight® solutions offer an innovative approach for cable, satellite, terrestrial and IPTV operators to cost-effectively extend their networks and enable new business models. As the recognized leader in software-based security solutions for premier service providers, Verimatrix has pioneered the 3-Dimensional Security approach that offers flexible layers of protection techniques to address evolving business needs and revenue threats. Maintaining close relationships with major studios, broadcasters, industry organizations and its unmatched partner ecosystem enables Verimatrix to provide a unique perspective on digital TV business issues beyond content security as operators seek to deliver compelling new services.