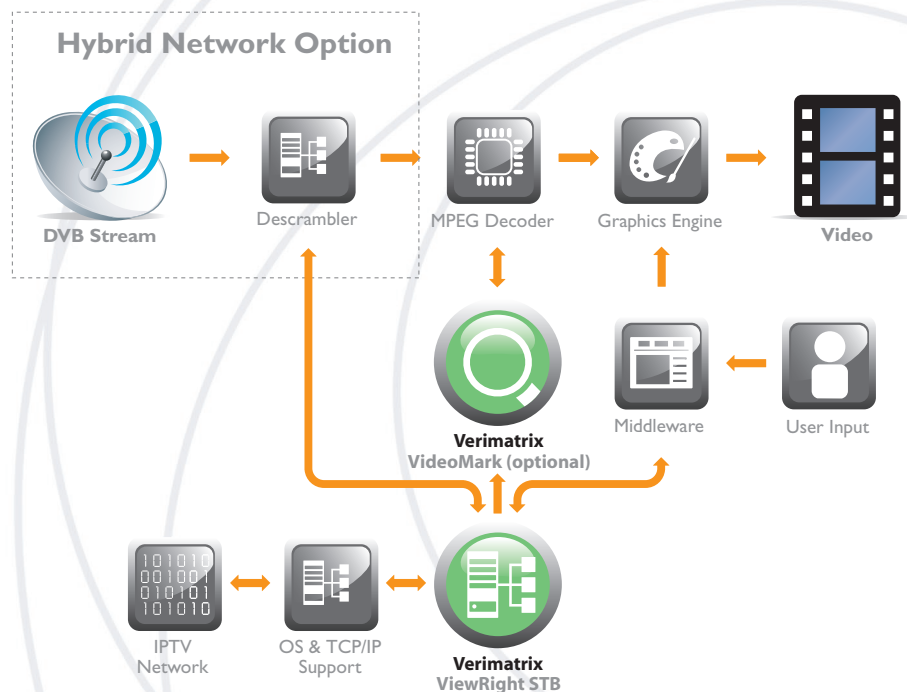


Software-based Content Security for IP Set-top Boxes

The Verimatrix ViewRight STB for IPTV client is a robust package of portable embedded code that implements the Verimatrix Video Content Authority System (VCASTM) security functions within each IP 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 the middleware also running on the STB.

A software-based security solution for two-way networks, ViewRight STB operates without the need for smart cards. It offers best-of-breed content security and revenue protection in a hardened implementation that incorporates signing, multiple levels of integrity checking, debugger detection, key obfuscation and intrinsic renewability.

ViewRight STB is integrated and operational on a wide variety of commercial STB hardware and software combinations. In Digital Video Broadcast (DVB)-IP hybrid mode it is used with various types of DVB front-ends (DVB-C, DVB-S and/or DVB-T) in combination with IP.



Features

- Platform OS
- Chipsets
- Secure features use
- STBs
- Memory footprint
- Content encryption
- Hardware decryption
- Broadcast support
- VOD support
- Clone detection
- Middleware support

Linux, Nucleus, OS21, VxWorks, Windows CE, etc.

Broadcom, Conexant, NXP, Sigma, ST, TI, etc.

Exploits available SOC secure resources and functions

Integrated into more than 100 STB models

Approx. 500KB code, plus SSL support if not present

128-bit AES, 128-bit RC4; also DVB-CSA if supported by STB

Built-in support for on-chip hardware descramblers

MPEG-2 Single Program and Multi Program Transport Streams, including IP multicast support

MPEG-2 Transport Stream with "trick play" support

Various patent pending technologies

Wide choice of pre-integrated middleware products

Integrated DVR Features

ViewRight STB incorporates a seamless approach for digital video recorder (DVR) functionality within pay-TV deployments, using local hard disk storage or a network DVR (nDVR) approach within the pay-TV head-end. ViewRight DVR functions do not compromise the security perimeter of the pay-TV system since VCAS is architected to directly enable recording and replay of broadcast streams without translation or re-encryption. By leverage of key management in the VCAS Content Security Manager (CSM), DVR and nDVR functions are supported in a flexible and cost-effective manner. VCAS and ViewRight STB enable implementation of any possible business rule and content management scheme while satisfying all concerns about potential vulnerability of DVR files to decryption and redistribution

VCAS[™]

The Verimatrix Video Content Authority System (VCAS) offers an advanced suite of technologies that address content security challenges for the networks of today, and those of the future.

Supporting IPTV, traditional DVB broadcast and mobile networks, VCAS fully exploits the power and elegance of modern two-way IP infrastructure to provide a superior level of content security and revenue protection on STBs, PC and a growing range of other client devices. Even in DVB broadcast networks, cost and renewability requirements demand that the system architecture match evolving standards. Cryptographic and secure electronic transaction technologies proven in e-commerce applications, together with the increasingly sophisticated features of client device chipsets, enable VCAS to offer a more renewable and flexible implementation of content protection than that of traditional CA systems.

VCAS incorporates pioneering features that provide the best security perimeter of any content protection system, enabling complete transparency for legitimate content consumption while significantly raising the level of protection against content piracy.

As the global leader in software-based security, VCAS offers flexibility in choice of client devices, broad middleware interoperability and proven scalability.

Features

- Video encoding MPEG-2, MPEG-4/H.264, VC1, DivX
- Video encapsulation MPEG-2 Transport Stream
- Content encryption 128-bit AES, RC4, DVB-CSA
- Digital certificates X.509 compliant, 1024-bit PKI signature hierarchy
- Network management integration SNMP v1, v2c, v3
- VOD content ingestion Manual or automated with flexible workflow
- Head-end integration XML-RPC, SOAP, DVB-Simulcrypt
- Hierarchical distribution Enables multi-level content delivery channels without intermediate re-encryption
- Client flexibility Supporting very wide range of broadcast and hybrid STBs, plus PC and other devices
- Clone detection Revenue protection through patent-pending monitoring and response techniques
- Watermarking Robust tracing of illegitimate content copies through patented VideoMark user specific watermarking implementations

Verimatrix—Securing Content, Enhancing Entertainment

Verimatrix sets the standard for software-based content security and revenue enhancement technologies in pay-TV networks, with a growing global customer base of service providers. VCAS and ViewRight technologies offer an independently-audited security solution for pay-TV operators of all types, and the company is consistently ranked as a global leader in the content protection marketplace.

The company's 3-Dimensional Content Security approach enables secure delivery of content to multiple devices across multiple networks using multiple layers of content protection techniques. Maintaining close relationships with major studios, broadcasters, industry organizations and our broad partner ecosystem enables the company to address the challenges facing pay-TV networks of today, and those of tomorrow. For more information, please visit www.verimatrix.com.



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