



VCAS™ FOR DVB HYBRID

Extending DVB One-Way
with DVB Hybrid and HbbTV Services

INTEGRATE INTERACTIVE MIDDLEWARE AND HBBTV SERVICES TO A RANGE OF HYBRID SET-TOP BOXES AND SMART TVS

THE CHALLENGE

As operators transition from a broadcast network to a multi-network service, they must continue to handle the technical and commercial factors involved in growing such a business:

- Lack of set-top box return path to the headend
- Need to increase average revenue per user by offer personalized services
- Increased competition from telcos and OTT operators

Providers are pressured to offer their viewers full content access independent of time, device and location through an intuitive interface while not increasing vulnerability to piracy.



THE SOLUTION

To offer further revenue protection, Verimatrix solutions are designed to be future-proof as the pay-TV industry undergoes rapid transformation. The VCAS for DVB Hybrid solution incorporates enhanced security for UHD/4K support, HbbTV, MPEG-DASH and IPv6. Operators no longer need to worry about soon-to-be obsolete technology as Verimatrix has built solutions flexible enough to account for any scenario.

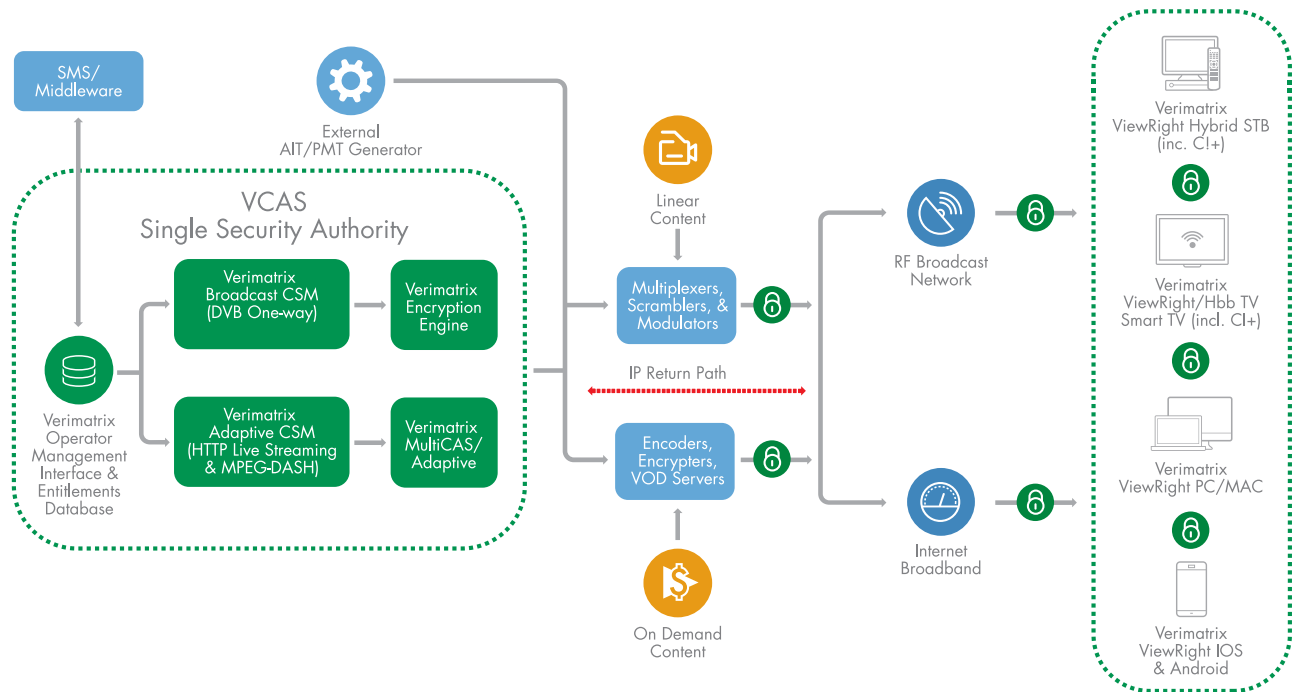
Our solutions enable operators to deploy modern, cost-effective systems with integrated extensions to multi-device streaming. The VCAS for DVB Hybrid solution is based on a single content authority approach that helps operators stay ahead of the competition by expanding business models and partnering with mobile networks.

VCAS for DVB Hybrid is completely compliant to applicable DVB standards and pre-integrated with a broad range of partner headend and software systems. Close relationship with the major chipset vendors and set top box manufacturers has created a marketplace that offers a very wide selection of robust client devices at different price points.

In addition to its Farncombe audit, VCAS for DVB Hybrid has been proven effective in the field for its key benefits:

- Cardless set top box client technology, with optional smart card support
- Highly efficient EMM bandwidth handling
- Comprehensive advanced bit rate streaming
- Scalable to support evolving business models; supports HbbTV and hybrid service delivery

VCAS™ FOR DVB HYBRID SYSTEM ARCHITECTURE AND KEY COMPONENTS



- **Operator Management Interface (OMI)** – The core administrative component of VCAS, the OMI provides a single VCAS integration point for customer care, billing and middleware systems through a set of content, device and entitlement management interfaces.
- **Broadcast Content Security Manager (BCSM)** – BCSM enables advanced pay-TV business models within VCAS secured one-way networks. It provides operators with unlimited flexibility to define pay-TV products and services, manages authentication, key distribution and user control. BCSM includes an entitlement control message (ECM) generator, implementing DVB Simulcrypt with multiplexers/scramblers, which enables MPEG-compliant Multi-Program Transport Stream (MPTS) encryption. This is complemented by an optional DVB SI server.
- **Verimatrix Encryption Engine** – This high-performance device encapsulates all cryptographic operations to protect ciphers and control mechanisms, and the set of operator keys.
- **ViewRight® STB for DVB** – Verimatrix offers client security flexibility with a choice of software-based clients, cardless secure SOC implementations, and advanced smart cards, all within the ViewRight ONE client security umbrella, allowing operators to match STB technology with ARPU potential. There are also DVB-CI and CI+ client options.
- **Adaptive Content Security Manager (ACSM)** – VCAS security components for networks implementing HLS or DASH based OTT services. ACSM supports authentication, key distribution and user control and acts as the root Certificate Authority in a PKI hierarchy.
- **MultiCAS™/Adaptive** – MultiCAS/Adaptive integrates high-performance third-party AES scramblers with proven VCAS key management functions. Content encryption keys are generated either by ACSM or the HLS/DASH encoder/scrambler and exchanged via the MultiCAS interface.
- **ViewRight® Web** – An integral part of ViewRight ONE, the web clients implement VCAS ABR security in off-the-shelf CE devices enabled for HLS/DASH, including iOS and Android phones and tablets, PC/Macs, smart TVs and set-top boxes.

ABOUT VERIMATRIX

Verimatrix specializes in securing and enhancing revenue for multi-network, multi-screen digital TV services and is recognized as the global number one in revenue security for connected video devices. Its award-winning Video Content Authority System (VCAS™) solutions enable video service providers to cost-effectively extend networks and enable new business models. www.verimatrix.com



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