



NAGRA MEDIA PLAYER

THE ULTIMATE END-TO-END SOLUTION FOR DELIVERING PAY-TV AND OTHER VIDEO SERVICES TO PCS AND OPEN DEVICES ACROSS MULTIPLE NETWORKS

The combination of multiple delivery networks (IPTV, Internet, satellite, DTT, mobile, etc.), the diversity in media consumption devices (TVs, PCs, mobile phones, portable players, etc.) and a rapid evolution of Digital TV business models (Over-the-Top, TV Everywhere, etc.) presents an opportunity for operators to provide converged services. The need for access to content, from any source and being able to consume that content anywhere and anytime, has become a universal requirement of consumers. The NAGRA Media PLAYER (NMP) provides the answer to this growing market need.

NAGRA Media PLAYER is a complete solution to secure the delivery of video content on PCs, and is simultaneously extendable to other open consumer electronic (CE) devices. It consists of the following core elements:

- ✘ The NAGRA Media PLAYER Client which includes the secure player and the application runtime environment
- ✘ The Client application (reference User Interface based on HTML5 and JavaScript) that can be customized according to operator's needs
- ✘ The NAGRA Media PLAYER Services (NMPS) which feature services such as software update management, security monitoring and authentication
- ✘ The PKI and SLK Plug-in that powers a software-only security approach offering a two-way authenticated connection, monitoring and software renewability

SYSTEM HIGHLIGHTS

- ✘ Provides a complete software-only solution stretching from the head end components to the client
- ✘ System is pre-integrated with Nagravision's Federated Head End solution through NAGRA Media Service Delivery Platform (SDP) that is built upon a Service Oriented Architecture (SOA)
- ✘ Includes a single head end platform to manage, secure and deliver the same user interface and the same content across set-top boxes, PCs and other devices
- ✘ Enables an operator's "TV everywhere" strategy through the delivery of video over the internet from anywhere
- ✘ Supports Pull VOD over the internet via progressive download, as well as adaptive streaming, IPTV Multicast and Broadcast TV
- ✘ Features an open client runtime environment offering an object-oriented API layer that is common with set-top boxes. This facilitates the addition of cross-device applications such as Electronic Programme Guides (EPGs), Video-on-Demand (VOD), Catch-up TV, and Widgets.

- ✘ Provides access to complete NAGRA Media SDP's applications catalogue, as well as to the NAGRA Media WIDGET Store for web-based or other advanced services (such as recommendation and socialization)
- ✘ Based on advanced software security techniques built upon Nagravision's widely recognized security leadership
- ✘ Leverages an operator's existing investments with systems such as NAGRA Media Content Management System (CMS), NAGRA Media SDP previously integrated into the operator's backend system (OSS/BSS) and Nagravision's security product suite such as NAGRA Media ACCESS CLK (Smart Card based CAS), NAGRA Media ACCESS ELK conditional access system (Embedded Link CAS) and Persistent Rights Management (PRM)

VALUE PROPOSITION

Nagravision helps operators extend their reach to the internet and the open consumer electronics world to enrich their offerings and deliver a better experience to their subscribers. The NAGRA Media PLAYER delivers values to the operator's business such as:

- ✘ **Increased customer retention** through the realisation of a true level playing field of consumer devices and the delivery of a rich media experience ("TV Everywhere", advanced cross-devices end user applications, etc.)
- ✘ **Enhanced brand recognition** is realised thanks to a consistent branded user interface and applications while leaving the option for operators to differentiate those applications for each type of device
- ✘ **Increased ARPU** and new revenue streams as NAGRA Media PLAYER allows the operator to benefit from additional content sales or new subscription or on-demand opportunities
- ✘ **Lower cost to own and to operate** due to a single headend (CMS, SDP) for multiple devices, a software-only solution with no extra hardware and the integration with an operator's existing infrastructure
- ✘ **Shorter time-to-market** because NAGRA Media PLAYER is pre-integrated with all the building blocks of NAGRA Media Federated Head End and also offers an open client environment for the quick development and integration of new, end user applications

NAGRA MEDIA PLAYER

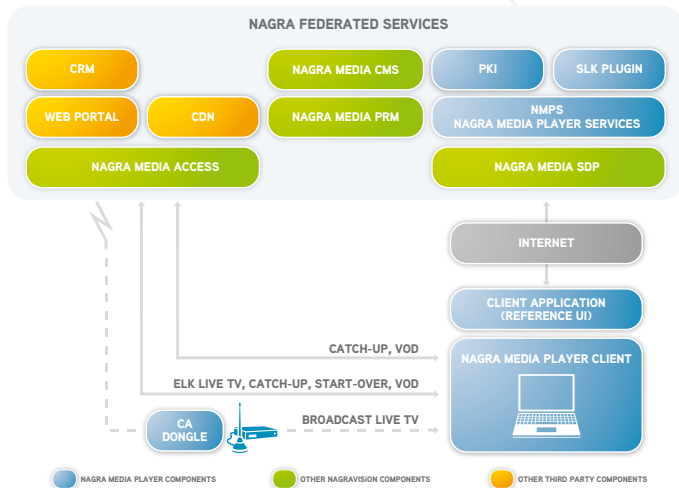


GIVING OPERATORS A COMPETITIVE EDGE

Operators can use NAGRA Media PLAYER to cost-effectively compete with internet content delivery by creating a TV Everywhere (or TV-to-PC) offering. This offering makes the TV experience “portable” and further increases the value of an operator’s service portfolio. NMP also becomes a major enabler to the building of a multi-device home networking model that encompasses the growing variety of IP enabled devices at home via the additional support of IPTV Multicast and Broadcast TV. In the case of Broadcast TV delivery, NMP comes in the form of a USB dongle that provides the client, the DVB tuner and descrambler functions.

A SINGLE FEDERATED HEAD END

NAGRA Media PLAYER is fully integrated with the NAGRA Federated Head End Architecture. This architecture provides an operator with the tools to manage, secure and operate from a single environment a wide range of media services across multiple devices. Services may span across multiple delivery networks and content formats, allowing subscribers to enjoy a seamless digital entertainment experience without boundaries.

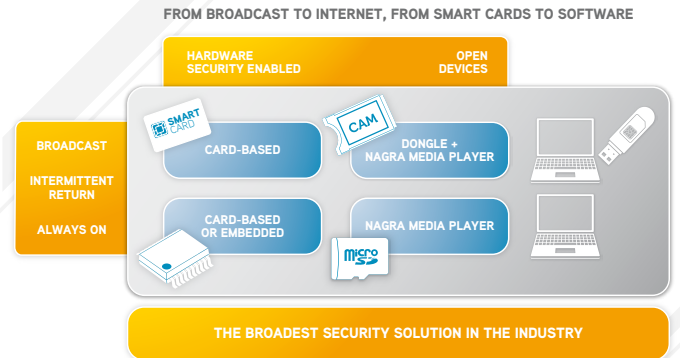


SHARED USER EXPERIENCE AND SAME CONTENT ACROSS DEVICES

The same client application environment is used between set-top boxes and open devices powered by the NAGRA Media PLAYER. This allows subscribers to re-use the set of applications available on set-top boxes and to offer a consistent user experience across devices with minimal effort. On the head end side, the single head end manages, secures and delivers the same content to multiple devices.

ADVANCED SECURITY MECHANISMS

Nagravision is currently securing more than 120 million active devices deployed on satellite, terrestrial, cable, mobile and IPTV networks and has capitalized on 15 years of experience in security research, design, testing, monitoring and counter-measures to develop the software-only security solution performed by NAGRA Media PLAYER. The security mechanisms include a two-way authenticated connection, server-side monitoring, client-side hardening techniques and software renewability. The NAGRA Media PLAYER security system is part of Nagravision’s industry leading portfolio of security solutions setting the benchmark in any context.



CUSTOMISABLE AND OPEN PLATFORM

NAGRA Media PLAYER provides a secure client HTML5 runtime environment using a set of object-oriented APIs which perform common TV tasks and represent the core capabilities of digital TV devices - including recording, playing and output. This API layer allows for the quick addition of applications by an operator. The ability to easily change and differentiate the user interface is an important competitive asset for operators. The HTML5 technology reduces the complexity in the creation or the customisation of the user interface.

INCREASE REVENUES AT A MINIMAL COST

NAGRA Media PLAYER allows for the flexible and quick launch of a video experience over PCs with cross-selling, up-selling or advertising supported revenue generation without the cost of additional hardware except in the case of Broadcast TV where a USB dongle is required. In the context of a rapidly growing number of video assets being delivered by operators and the multiplication of business models, the ability for the Nagravision Federated Head End solution to define, secure and manage content across multiple devices and networks from a single system allows operators to reduce operational expenditures and better compete in the marketplace.