

NAGRA MEDIA SDP

AN ADVANCED AND FLEXIBLE SERVICE DELIVERY PLATFORM ENABLING A CONVERGENT DIGITAL TV EXPERIENCE ACROSS MULTIPLE NETWORKS AND DEVICES

Service providers are launching digital TV and multimedia services of increasing complexity. Many of them have launched triple-play or quad-play offerings. Some broadband operators want to make their services a truly convergent proposition by offering subscribers a consistent and seamless experience across multiple devices and content formats. Other broadcast operators seeking to add interactivity to their services and better compete in the marketplace are turning to IP technology. The NAGRA Media Service Delivery Platform (also referred as NAGRA Media SDP) addresses the challenges of these operators. It is part of Nagravision's end-to-end Federated Head End solution enabling the delivery of a unified experience across multiple devices and services from a single and centralised environment. In particular, the NAGRA Media SDP acts as a single delivery management system over hybrid networks.

THE NAGRA MEDIA SDP ACTS AS THE CORE ELEMENT IN THESE OFFERINGS AS IT PROVIDES THE FOLLOWING KEY FUNCTIONALITIES:

- ✕ Delivery of services such as Electronic Program Guide (EPG) data over IP, hybrid pay TV services (PPV, "à la carte"), Video-on-Demand (VOD), catch-up and time-shift TV, messaging, and federated OTT services
- ✕ Management of subscriber and device deployment and provisioning
- ✕ Management of subscriber transactions (purchases, subscriptions, promotional offers, real-time credit monitoring and more)
- ✕ Session resource management for both on-demand and switched digital video services
- ✕ Interface with operational and business systems (OSS/BSS/CRM) and reporting
- ✕ Communication with Conditional Access and DRM (Digital Rights Management) systems such as the NAGRA Media ELK (Embedded Link CAS) & CLK (Smart Card based CAS) and NAGRA Media PRM (Persistent Rights Management)

Additionally, a fully documented SDP Software Development Kit (SDK) is available to customise existing SDP services or add new services.

SYSTEM HIGHLIGHTS

- ✕ Part of the complete NAGRA Media Federated Head End solution enabling a consistent experience across any content, any device, anywhere, and making content discovery a lot easier
- ✕ Provides full support of hybrid networks (broadcast and IP) and/or hybrid security solutions (card and/or embedded)
- ✕ A modular platform through a server-side Service Oriented Architecture (SOA) and SDK
- ✕ An open client environment supporting multiple devices such as set-top boxes, CI+ modules, iDTVs, PCs, and mobile phones
- ✕ Enables innovative business models from wholesale with full multi-network and multi-VOD shop hosting support, prepaid / post paid models, closed network and over-the-top business models
- ✕ Provides access to the NAGRA Media Widget Store and to a large library of applications

- ✕ Pre-integrated with other NAGRA Media Federated Head End components, as well as leading third party vendors such as video server partners
- ✕ A high-availability and redundant platform with a standards-based, industry-accepted environment (Linux, Oracle, Java,..)
- ✕ A scalable and proven system through multiple operator deployments worldwide

VALUE PROPOSITION

Operators are facing ever growing competition in an industry where IP and web technologies are becoming the default innovation vehicle. With its unique mix of advanced functionalities, the NAGRA Media SDP will benefit service providers in all major business parameters:

- ✕ **New revenue streams** are created by the introduction of innovative business models and the monetisation of new applications including connected and social widgets
- ✕ **Increased ARPU** can be realised with a consistent user experience that makes content discovery and media consumption much easier and more personal
- ✕ **Lower cost to own** because the federated architecture makes it possible to deliver services across multiple devices and multiple networks from a single head-end environment
- ✕ **Lower cost to operate** is realised by combining the NAGRA Media Federated Head End with a next generation service oriented architecture to facilitate the customisation and addition of new applications
- ✕ **Shortened time-to-market** occurs with the quick integration of backend systems (web-services approach) and the pre-integration with other components of the NAGRA Media Federated Head End and leading set-top box vendors
- ✕ **De-risking** through the use of a proven solution given NAGRA Media SDP's extensive deployment across the world and Nagravision's continued leadership in digital TV security and end-to-end solutions

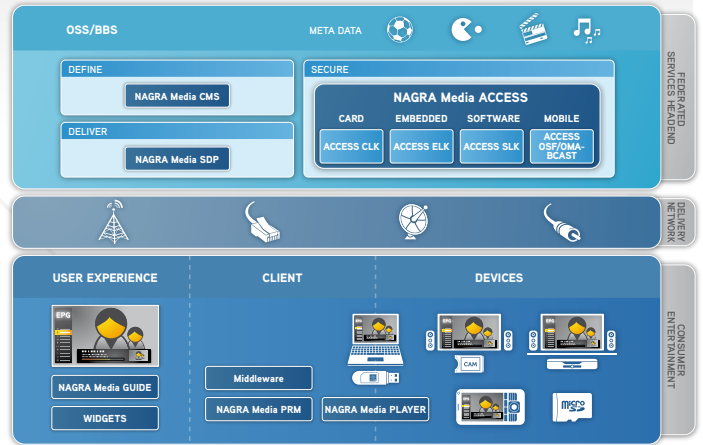
FEDERATED ARCHITECTURE AND HYBRID NETWORKS

NAGRA Media SDP is fully integrated within 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. Services may span across multiple delivery networks, devices and content formats, allowing subscribers to enjoy a seamless digital entertainment experience without boundaries. With the convergence of DVB and IP as a business imperative in many instances, the Nagravision solution minimises the overall cost with a design that simultaneously supports hybrid broadcast and broadband networks and hybrid set-top boxes.

MODULAR AND OPEN PLATFORM

The NAGRA Media SDP offers a truly open server-side application framework, built upon a Service Oriented Architecture (SOA) methodology. It includes a full Software Development Kit (SDK) enabling a service provider to easily modify, extend and add services on their own and to ease integration with any available backend system in order to reach a fast time to market proposition.

The NAGRA Media SDP is fully abstracted from the client implementation technology and client applications. All SDP services are exposed via a published Application Program Interface (API) that can be accessed by external peer systems and/or clients. Utilising the SOA concept, the NAGRA Media SDP enables the operator to have full control and flexibility in both technology choice and service delivery timescales.



INNOVATIVE BUSINESS MODELS

More than 120 of the largest and most advanced Pay-TV operators worldwide trust Nagravision to protect tens of billions of dollars in revenue and to deploy innovative business models. The NAGRA Media SDP enables a large array of business models ranging from the conventional subscription, pay-per-view (PPV), "à la carte", season tickets, retail models to advanced business models such as targeted advertising or multiple set-top boxes in the home. In some cases, service providers are grouping themselves in order to reduce the infrastructure costs related to building a complete digital TV platform. The Nagravision platform provides a true multi-operator system (wholesale platform).

A RICH SET OF APPLICATIONS

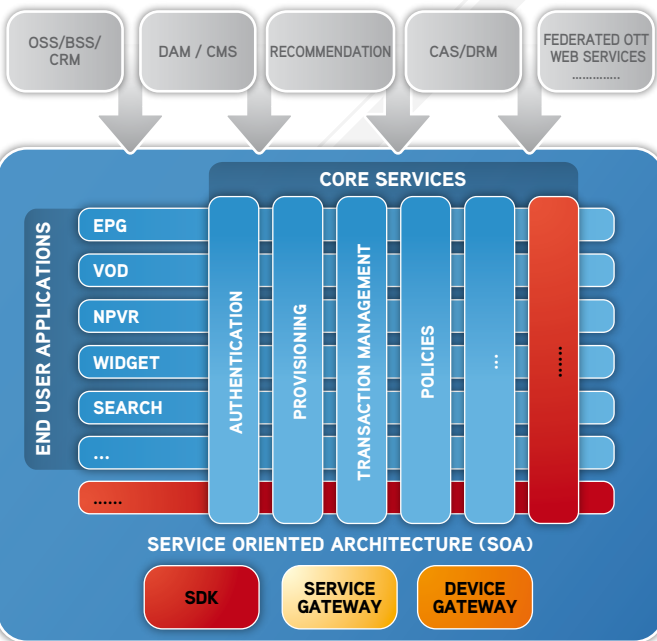
The NAGRA Media SDP comes with an extensive library of interactive applications that can be used as a solid basis for operators to define their own service offerings:

- ✕ Advanced EPG over IP: PVR, remote PVR programming, Near Video-on-Demand, start-over, time-shift.
- ✕ On-demand applications: VOD, Subscription based Video-On-Demand (SVOD), operator controlled catch-up and start-over TV as well as user controlled NPVR, gaming-on-demand
- ✕ Communication applications: email, messaging, chatting, Emergency Alert Service (EAS), etc.

In addition to the NAGRA Media SDP and working in conjunction with it, the NAGRA Media WIDGETS solution provides a turnkey platform for bringing web-based applications to multiple screens. The solution features a large library of widgets accessible in a store, a publishing platform (SDK) to create and customise widgets, and a dock to access content from the device.

PRE-INTEGRATED PLATFORM

The NAGRA Media SDP has been pre-integrated with the NAGRA Media Content Management System (CMS) and NAGRA Media ACCESS security solutions, as well as with leading third party vendors (set-top boxes, VOD servers, CRMs, etc.) in order to provide a one-stop-shop solution to operators while reducing the time-to-market and the cost associated with the deployment of a digital TV service. NAGRA Media SDP also provides fully industrialised interfaces for integrating with existing service provider OSS/BSS, and with other systems such as customer relationship management, and billing and rating, as well as network management.



CONVERGENT USER EXPERIENCE

Service providers are engaging in a fierce competition where the support of a seamless service across different evolving devices is key. NAGRA Media SDP offers the ability to deliver a consistent service across multiple devices (TV, PC and mobile), multiple networks and multiple types of content (movies, catch-up/start-over TV, gaming, web content, ringtones, etc.).