Case Study

NOS and Espial Transform the Video Experience in Portugal
“Our true competition is starting to appear through the Internet... We needed to be prepared; we needed to have an answer so that our customers would not have a need to subscribe to their services.”

Pedro Bandeira
Head of Development, NOS

The Challenge: Redefine the Subscriber Video Experience in Portugal

NOS Media is recognized as one of the most forward-thinking Pay TV operators in Europe. As the leading cable operator in Portugal, a highly competitive Pay TV market, NOS must continually redefine its consumer experience.

NOS was cognizant of the new Over the Top (OTT) video competitors threatening other global pay TV operators and knew that they needed a strong response - ahead of the entrance of these new rivals into Portugal - to remain their subscribers’ provider of choice for video.

NOS is not alone in this challenging situation. The global expansion of newcomers such as Netflix has accelerated the industry into a time of rapid transformation. Using a pioneering strategy, the innovators at NOS embarked on an ambitious project to completely redesign their User Experience (UX) to bring the next generation of video to their subscribers. This new UX platform would provide viewers a single portal to an aggregated set of content including linear TV, cloud DVR, on-demand content, compelling apps, as well as access to OTT services. Through consumer research, NOS fine-tuned their new video service to be attractive to current and prospective subscribers, as well as the challenging millennial market segment.

To successfully develop this groundbreaking service, NOS created a strategy based on three key principals:

• Focus on the subscriber and their user experience
• Enable flexibility for agile and continuous innovation
• Leverage fast-moving, open industry technologies such as RDK and HTML5

Values that RDK brings to Operators

Control
RDK is an open source code based software platform. This allows all parties involved in the video project – including the chip and STB vendors, the Client software developer and the systems integrator – the ability to all work on the same code base. This gives the operator final control and visibility over the project.

Data
RDK enables operators to gather real time data on how subscribers navigate the UX. This can inform operators how to best enhance their service as well as improve their operations.

Speed
RDK’s open source and access to big data allows operators to transition to a DevOps model which can reduce time to market and allow for decisions and updates with real time data.

Scale
RDK is an open source solution with a global community that can all work on and contribute to the code base. This gives operators the option to both contribute and benefit from the contributions of the community.

The NOS Portugal team wanted to control their user experience and has really stood out as a leader and innovator in the RDK. They chose a top notch integrator and operator – Espial - and they’ve put together a great user interface and solution based on the RDK.

Steve Heeb
President, RDK Management
The Solution: A Partnership to Redefine the User Experience

With the need for fast time to market, NOS set out to find a partner whose solution and services could help them quickly create and deploy breakthrough video services to the Portuguese market. After a highly competitive assessment was undertaken between Espial, and several alternatives (including NOS’s incumbent vendor), NOS selected Espial for their cloud and client solution set. In addition, Espial Elite professional services was chosen as systems integrator for this critical project.

Espial’s solution leveraged key differentiators, including:

- A high-performance STB client, the Espial G4 Client, to enable NOS to create a unique and immersive UX which integrates linear television, cloud DVR, and timeshift services with advanced apps
- Industry standards such as HTML5 (UX and Apps), and MPEG-DASH over proprietary or native approaches
- A layered software approach with a separate UX module allowing for complete design control
- The Reference Design Kit (RDK) environment, an open-source community-led initiative which accelerates time to market and brings economies of scale
- Espial Elite - among the world’s most experienced integrators of next-gen video solutions - worked closely with the NOS team, providing project management and integration of the end-to-end NOS video ecosystem including Broadcom BCM7251S chipset, 4K Hybrid IP ARRIS ZD4500 set-top, NAGRA anyCAST CONNECT content protection, and Nuance Dragon TV Voice Recognition.

A Sophisticated Project

In a project of this scale, it is inevitable that significant hurdles had to be overcome, and this one was no different. The project required integration across chipsets, set-top boxes, speech recognition technologies, conditional access systems, recommendation engines, and cloud DVR systems. At different stages, the project encountered challenges which had to be surmounted to maintain cost and schedule. Examples of impediments faced included changes to software libraries, delays in availability of key technologies like 4K, and creating/modifying APIs when integrating new components of the solution. These hurdles had the potential to set the project delivery back several months.

Mitigating these issues, the Espial Elite team applied a customized project management paradigm – ideal for projects of this size and complexity - to understand the shifting technical landscape and to align schedules with NOS and the ecosystem partners to tackle problems and creatively adjust task scheduling. With foresight and anticipation of potential hurdles – coming from deep experience – the Espial Elite team was able to reduce the impacts from months to weeks.
The Results:

Together, NOS and Espial have worked to successfully develop Europe’s newest hybrid IP video service and it is now actively deploying throughout Portugal. Leveraging key technologies such as RDK and HTML5, and applying the latest Agile methodologies, NOS and Espial completed the project in a record timeframe measured in months, rather than years. Its centerpiece is a next generation premium video experience with first-to-market features such as 4K video, voice control, nDVR, and a fully 1080 UX. NOS’s new service deployment also represents several industry firsts in the RDK environment, including Europe’s first MSO to commercially deploy voice recognition, the first RDK deployment outside of the founding partners (Comcast and Liberty), and the world’s fastest HTML5 performance on a commercial STB. The deployed solution met all of NOS’ goals, and positions them to be very competitive going forward. With this launch, NOS expects to increase ARPU, attract millennial subscribers and reset consumer expectations for video service in Portugal, becoming a flag-bearer for video service providers throughout Europe.

“Delivering this project in record time is testimony to the professionalism of the NOS and Espial Elite teams. Applying a best-practices project management methodology, our highly specialized services team worked closely with NOS to deliver a game-changing video service in a timeline measured in months rather than years.”

Junaid Muzaffar
VP, Espial Elite Professional Services