The Convergence TV Project receives the 2018 NAB Technology Innovation Award for its ATSC3 SHVC based HD/UHD hybrid delivery demonstration

NAB presents the **Technology Innovation Award** to organizations that have made a significant contribution to broadcasting and that bring advanced technology exhibits and demonstrations to the NAB Show. The Convergence TV consortium received this award this year for *"For Demonstrating ATSC 3.0 Transmission of UHDTV Using Scalable Coding over Hybrid Broadcast and Broadband Paths."*
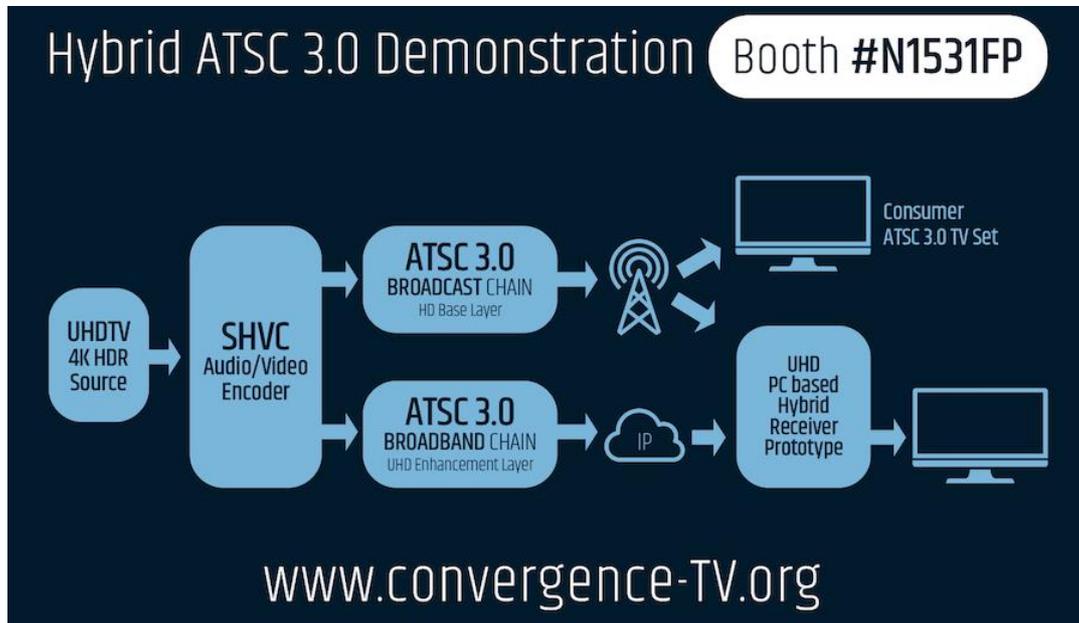
At NAB 2018, the **Convergence TV Project** is demonstrating the delivery of a full UHDTV service using an ATSC 3.0 broadcast path for distributing a regular HD service (2K + HDR) and an ATSC 3.0 broadband path for **enhancing the service from HD to UHDTV** (4K + HDR).

There is **no simulcasting**. The broadcast path delivers the HD signal while the broadband path delivers only the enhancement signal from HD to UHD, thanks to the use of scalable HEVC (SHVC) for audio & video compression. Both paths are fed from a **single SHVC encoder** providing the base layer signal to the broadcast chain and the enhancement layer to the broadband chain.

Two receivers show the service enhancement. They are a **regular ATSC 3.0 TV set** displaying the basic HD HDR service and a **PC based hybrid receiver** prototype able to combine the base and enhancement layers thanks to a SHVC decoder. This world-first demo intends to demonstrate one of the exclusive features of the ATSC 3.0 system approach, i.e. the native **hybrid delivery** mechanism, which ensures quasi-unlimited flexibility for enhancing the user experience. .

Beyond the efforts of the consortium of seven partners, this demonstration has been made possible with support of **Samsung,** which provides the ATSC 3.0 TV set for the backward compatibility demonstration. Being fully UHD and SHVC compliant, this TV set is also able to display UHD services when both the base layer and enhancement layer are distributed through the broadcast path.

About the Convergence TV Project

Convergence TV is a research project powered by five French innovative and high tech companies: **TeamCast** (lead), **ATEME, Broadpeak, Motion Spell, TDF** and two prestigious academic research institutes: **INSA Rennes** and **Telecom Paristech**.
The main objective of the project is to work on hybrid delivery of advanced TV services, using a broadcast delivery as mainstream and broadband add-ons for a better Quality of Experience, immersivity or interactivity. The project chose ATSC 3.0 as their all-IP hybrid delivery system.
The Convergence TV project is sponsored by the **French Government** and two local councils (Region **Bretagne** and Region **Ile-De-France**).