

WORLD'S FIRST LCEVC-ENHANCED EXPERIMENTAL BROADCAST CHANNEL BY GLOBO AND V-NOVA DURING WORLD CUP

- MPEG-5 LCEVC-enhanced live video over-the-air (OTA) broadcast takes place in Brazil
- The project highlights the benefits of LCEVC in the carriage of HDR and higher bit-depth information as well as compression performance
- Showcase features first-ever end-to-end system for Brazil's TV 3.0 next generation system

London, UK – 06 December 2022 – V-Nova, a leading provider of video compression solutions, announces the world's first broadcast of a MPEG-5 LCEVC-enhanced channel, being showcased by Brazilian media company Globo during the football World Cup in Qatar.

The showcase features a live broadcast channel that leverages the enhancement layer of LCEVC to convert an existing TV 2.0 signal into a High-Dynamic Range (HDR) 10-bit channel for the enabled receivers. Transmission happens over the existing ISDB-Tb system and leads the way to the forthcoming discussions on the inclusion of LCEVC in the TV 2.5 specification.

The showcase also features the first end-to-end trial over DASH streaming of an LCEVC-enhanced VVC video, as an example of the capabilities that are developing to support the upcoming TV 3.0 standard, Brazil's next-generation DTT system that is being specified by the Brazilian SBTVD Forum and is due to be deployed in 2025. It is the first time these technologies are being used in a complete end-to-end production to provide 4K HDR video with immersive and personalized audio. The system will facilitate the distribution of current and future formats, including 8K resolution, HDR and Next-Generation Audio (NGA) to over-the-air broadcast (OTA) and over-the-top (OTT) streaming platforms.

The two LCEVC trials are the outcome of a long project that saw the collaboration of many companies. It illustrates the fast pace at which the ecosystem support for these technologies is maturing.

Carlos Cosme, Innovation Specialist at **Globo**, said:

“It is amazing how fast this ecosystem is being formed, with various implementations based on software and hardware. Globo, at the technological forefront, is experimenting for the first time in Brazil the joint operation of the MPEG-5 LCEVC codec with the H.264 codec, all of this is associated with an immersive and personalized acoustic experience. In this showcase, the base layer is a 1080i, 8-bit, SDR, BT.709 signal targeting current Brazilian TV sets. Using the information present in the enhancement layer, the LCEVC codec enhances the quality of the base layer and provides a video signal with improved quality, i.e., 1080p, 10-bit, HDR10, and BT.2020. In the second showcase, using the 4K production signal from the World Cup, we demonstrated the joint use of LCEVC with VVC, both technologies chosen by the SBTVD Forum to make up the technology stack of the future 3.0 TV in Brazil. We are very proud to be able to experience first-hand all these technologies operating together.”

Mickael Raulet, CTO, **Ateme** said: “TV 3.0 will require a wide ecosystem push to bring over-the-air and over-the-top deliveries together and unlock its unprecedented monetization potential. As a member

of Brazil SBTVD, Ateame is proud to do its part. Providing the VVC compression for the Globo World Cup showcase is a key milestone in this longstanding effort. With the current heightened competition for viewership across media, maximizing the user quality of experience is an imperative.”

Guido Meardi, CEO, **V-Nova** said:

“These two showcases with Globo in Brazil are extremely exciting. As part of a TV 2.5 trial, we were able to put on-air the first broadcast channel with LCEVC during the football World Cup. As part of the TV 3.0 trial, we are showcasing LCEVC-enhanced VVC live for the first time on an end-2-end system. This would not have been possible without Globo and the dedication of several technology partners providing encoding, transmission, and decoding solutions to give us a view of the future of broadcast and streaming television, of which LCEVC will be a key enabler.”

The LCEVC live showcase runs during the FIFA World Cup Qatar 2022 from 20 November to 18 December 2022.

###

About V-Nova

V-Nova is committed to unlocking higher picture quality at scale. Its technologies, based on the innovative use of AI and parallel processing improve data, video, imaging, point-cloud compression and have been granted international standard status by MPEG, ISO and SMPTE. Our relentless investment in R&D has built a portfolio of over 600 international patents which we monetize through software licensing, IP royalties and product sales. More about V-Nova: www.v-nova.com

About MPEG-5 LCEVC

MPEG-5 part 2 LCEVC (Low Complexity Enhancement Video Coding) is the latest standard by MPEG and ISO. It specifies an enhancement layer which, when combined with a base video encoded with a separate codec, produces an enhanced video stream. It can boost the compression efficiency of any existing or future video codec, enabling higher quality at up to 40% lower bitrates. It also provides substantial compute savings (up to 4x) compared to using the base encoders in full resolution. It is suitable for software processing implementation with sustainable power consumption.

The enhancement stream provides new features such as:

- Extending the compression capability of the base codec
- Lowering encoding and decoding complexity
- Providing a platform for additional future enhancements

For more information: <https://www.lcevc.org/>

Press contacts:

Jose D. Guariglia - PR Account Manager, Bubble UK and EMEA

jd@bubbleagency.com

Casey Love - PR Account Manager, Bubble USA

caseyl@bubbleagency.com