

## FOR IMMEDIATE RELEASE

## Heartland Video Systems helps Gray Media configure custom ATSC 3.0 StatMux and HDR capabilities in advance of The Big Game

**PLYMOUTH, Wis. — March 19, 2025** — Heartland Video Systems, Inc. (HVS), a premier video systems integration and consulting firm, announces that our ATSC 3.0 expert team preconfigured and lab tested custom StatMux and HDR configurations for Gray Media's station WVUE in New Orleans, LA in advance of The Big Game. HVS has gained a reputation as the go-to source for all things ATSC 3.0 and has been instrumental in launching over 70 "Lighthouse" stations across the United States.

StatMux is a technique that efficiently and dynamically allocates bandwidth among multiple video services within a fixed-bandwidth pool, adjusting the bitrate of each service to optimize overall picture quality.

ATSC 3.0 StatMux differs from ATSC 1.0 StatMux in a few ways, making it much more difficult to implement. ATSC 3.0 is natively SPTS (single program transport stream) and does not have an MPTS like is used for ATSC 1.0 StatMux. So, provisions had to be made to create an intermediate step to pool all services in a group and then separate them back out to SPTS before the DASH packaging.

A second issue with ATSC 3.0 is that the DASH packaging and ROUTE encapsulation adds some delay and buffering to the services and that causes the relatively flat bitrate coming out of the encoder StatMux pool stage to start to vary again, often quite a bit (maybe 5 or more Mb/s). Therefore, some processing in the downstream equipment (signaling server) is needed to restore a relatively flat stat mux pool behavior. There is also an additional step that requires attention, we have to make sure the extra processing we do in the signaling server doesn't insert too much delay / buffering or the consumer receiver devices can have issues.

This specific customer request from Gray Media was for HVS to develop a custom ATSC 3.0 StatMux that wouldn't adversely affect any of the available ATSC 3.0 tuners in TVs or set top boxes. HVS pre-qualified and tested several StatMux combinations in our advanced ATSC 3.0 laboratory in the company's headquarters located in Plymouth, WI. After successful lab testing, HVS then deployed the new configuration at the WVUE TV New Orleans station in time for The Big Game.

For the New Orleans ATSC 3.0 market, HVS configured a Harmonic XOS encoding platform and a DigiCAP DigiCaster ATSC 3.0 air chain as a StatMux. Before configuring the StatMux, the ATSC 3.0 OTA signal was running an average of 4 Mb/s per program service. We equally rated all the program services, but the FOX program feed would still get the most bitrate due to the complexity of the video. After the custom StatMux was set up and tested, it is estimated the average bitrate was closer to 6-7 Mb/s and would max out at around 10 Mb/s when needed. Additionally, the other services had peak bit rates at around 7Mb/s. So, at times,

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even the non "Big Game" programs benefited more than they would have if they were running the older pre-HVS configuration. In addition to the StatMux configuration, HVS also helped WVUE enable Dolby® Vision & HDR10+ and Dolby Atmos upmix on this important service.

"Gray Media is committed to providing the best-in-class audio and video quality to its viewers through its NEXTGEN TV broadcasts. HVS's innovative StatMux solution allowed WVUE to deliver the best possible viewer experience during the Big Game and other high profile programming on WVUE, including local broadcasts of New Orleans Pelicans games," said Robert Folliard, Gray Media's SVP, Government Relations and Distribution.

"Heartland Video Systems, Inc. continues to engage with stations and vendors to push the envelope of ATSC 3.0 from the lab to the consumer. The capabilities of ATSC 3.0 also introduce a layer of additional complexity. We take stat-muxing for granted in ATSC 1.0, whereas in ATSC 3.0 it requires multiple vendors to integrate API's for full bandwidth utilization." said Dennis Klas, President of Heartland Video Systems, Inc.

"Harmonic and DigiCAP worked on the StatMux for a while, it is certainly exciting to see it come to fruition in the production system at WVUE. HVS has been an instrumental partner in developing, testing and proving the enablement of StatMux, and we will continue to work with Harmonic and HVS to enhance the operational ease of the StatMux." said Sang Jin Yoon, SVP Business Development of DigiCAP Co.,Ltd.

"Viewers can expect NEXTGEN TV to deliver a superior broadcast experience with brilliant High Dynamic Range for video and Dolby Atmos for enhanced audio, in markets where broadcasters are adding that capability. Gray Media and Heartland Video Systems are working to deliver a captivating experience, especially for key sporting events with the action and pageantry that really shows off NEXTGEN TV's best features," said Pearl TV managing director Anne Schelle.

## **About Heartland Video Systems**

Heartland Video Systems (HVS) has been supplying the U.S. with quality communication equipment, professional installation services, and ongoing technical support for 20+ years. HVS is a proud member of the Society of Broadcast Engineers (SBE), honored recipient of a 2010 Engineering Excellence Award, and a voting member of ATSC.

HVS has partnered with a multitude of major communication equipment manufacturers to provide technologies for all links in the broadcast chain. HVS offers a wide selection of manufacturers, enabling customers to easily choose the products they need while enjoying excellent customer service. HVS caters to many multimedia production platforms, including television stations, broadcasting stations, colleges and universities and postproduction facilities. We look forward to the opportunity to assist you in the audio and video equipment supply field.

For further information: Heartland Video Systems, Inc. Website: www.hvs-inc.com Contact:
Joseph Turbolski
Marketing Manager & Sales
Tel: +1 413 896 4859

Email: <u>jturbolski@hvs-inc.com</u>