



## Harmonic and Intelsat to Launch a UHD Demo Channel in North America

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### Intelsat's Galaxy 13 Satellite to Deliver 2160p60 Video Content Enabled by Harmonic's Spectrum(TM) Server and Electra(TM) X3 Advanced Media Processor

AMSTERDAM, THE NETHERLANDS -- (Marketwired) -- 09/08/15 -- As consumer demand for Ultra High Definition (UHD) content and televisions continues to grow, Harmonic (NASDAQ: HLIT), the worldwide leader in video delivery infrastructure, and Intelsat S.A. (NYSE: I), the world's leading provider of satellite services, today announced a partnership to launch HVN Intelsat UHD, a linear UHD demonstration channel for the North American TV markets.

This channel will be broadcast via Intelsat's Galaxy 13 satellite located at 127°W, and will provide multichannel video programming distributors (MVPDs) with an opportunity to prepare and test their UHD transmissions from the moment that they start downlinking content from Intelsat's Galaxy 13 satellite through their own networks and into the subscribers' homes. This platform will also be available to U.S. cable programmers to conduct their own testing of UHD content. Since Intelsat's Galaxy 13 satellite has 76 HD channels and reaches 98percent of the cable headends in the continental U.S., it creates an ideal environment for further enhancing the end-to-end delivery of UHD content to consumers.

Harmonic and Intelsat plan to demonstrate the HVN Intelsat UHD channel content at IBC2015 at the RAI Convention Center in Amsterdam, from Sept. 11-15. Utilizing an end-to-end UHD video processing system from Harmonic, Intelsat will transmit live and linear 2160p60 (HEVC Main 10 profile) video content via C-band on the Intelsat Galaxy 13 satellite. The content will then travel from Intelsat's Atlanta, Georgia, teleport facility using the IntelsatOne® IP/MPLS network to Intelsat's Fuchsstadt, Germany, teleport facility, where it will be uplinked via Ku-band on the Intelsat 905 satellite located at 335.5°E, and received and decoded at the RAI Convention Center in Amsterdam.

The initial commissioning test signal will leverage transport stream servers located at Intelsat's teleport facility in Atlanta, and Harmonic's ProMedia™ Xpress multiscreen transcoder and packager for precompression of the UHD video loop. Later this year, Harmonic will deploy its MediaGrid shared storage system, Polaris™ playout management suite, Spectrum™ X advanced media server system and Electra™ X3 advanced media processor to enable full UHD channel production and transmission from the company's HVN Center in San Jose, California. That signal will then be uplinked in Intelsat's teleport facility in Atlanta via Intelsat's Galaxy 13 satellite.

"As consumers purchase millions of 4K televisions before Ultra HD content even reaches critical mass, it has become clear that they are ready to experience the fully immersive viewing experience that Ultra HD provides," said Peter Ostapiuk, head of media product services, Intelsat. "By partnering with Harmonic, Intelsat can now enable pay-TV operators to test the distribution of live linear Ultra HD broadcasts in crystal-clear 2160p60 resolution to the home. Our customers will now have an opportunity to further test bandwidth allocation and UHD content delivery via Intelsat's hybrid satellite terrestrial network, which will pave the way for the distribution of amazing content -- from popular sporting events to the latest movies and TV shows -- and a viewing experience that can enhance customer satisfaction."

At the heart of Intelsat's UHD workflow is Harmonic's Electra X3 advanced media processor, the industry's first fully converged platform for broadcast and OTT delivery of UHD content with live, full-frame, full-GOP UHD encoding. Electra X3 is powered by the Harmonic PURE Compression Engine™, an advanced encoding technology that supports resolutions of up to 2160p60, leveraging the HEVC Main 10 codec. Using the Electra X3 media processor, Intelsat can deliver superior video quality at minimum bandwidth.

"By providing a complete UHD workflow solution for the delivery of live and linear broadcasts, Harmonic is driving the industry closer toward full-scale UHD service deployment," said Peter Alexander, CMO at Harmonic. "Harmonic offers all of the video infrastructure components that satellite operators such as Intelsat need for delivering 2160p60 UHD video content, including live, full-frame, full-GOP encoding, storage, and playout systems, enabling them to quickly roll out UHD services with market-leading video quality and a low total cost of ownership."

For those attending IBC2015, they can visit the Harmonic stand, 1.B20, or the Intelsat stand, 1.C71, for more details and a live viewing of the UHD demonstration.

#### **About Intelsat**

Intelsat S.A. (NYSE: I) is the world's leading provider of satellite services, delivering high performance connectivity solutions for media, fixed and mobile broadband infrastructure, enterprise, and government and military applications. Intelsat's satellite, teleport and fiber infrastructure is unmatched in the industry, setting the standard for transmissions of video and broadband services. From the globalization of content and the proliferation of HD, to the expansion of cellular networks and mobile broadband access, Intelsat creates value for its customers through creative space-based solutions.

Envision...Connect...Transform...with Intelsat. For more information, visit [www.intelsat.com](http://www.intelsat.com).

#### **About Harmonic**

Harmonic (NASDAQ: HLIT) is the worldwide leader in video delivery infrastructure for emerging television and video services. Harmonic enables customers to produce, deliver and monetize amazing video experiences, with unequalled business agility and operational efficiency, by providing market-leading innovation, high-quality service and compelling total cost of ownership. More information is available at [www.harmonicinc.com](http://www.harmonicinc.com).

*This press release contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, including statements related to the anticipated launch of the HVN Intelsat UHD linear UHD demonstration channel for the North American TV markets and the related deployment of Harmonic's ProMedia, Electra X3, Polaris, Spectrum and MediaGrid products to enable the UHD demonstration channel. Our expectations and beliefs regarding these matters are subject to risks and uncertainties, including the possibility that the launch of the UHD demonstration channel experiences delays, or the launch fails to occur, due to unexpected technical or other*

difficulties.

*The forward-looking statements contained in this press release are also subject to other risks and uncertainties, such as those more fully described in Harmonic's and Intelsat's filings with the Securities and Exchange Commission, including its Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K. The forward-looking statements in this press release are based on information available to Harmonic as of the date hereof, and Harmonic disclaims any obligation to update any forward-looking statements.*

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