PRESS RELEASE

Fraunhofer IIS, Unified Streaming and Partners Collaborate to Extend HE-AAC MPEG-DASH Streaming Ecosystem

Fraunhofer's HE-AAC multichannel codec and Unified Streaming's adaptive streaming tools deliver superior quality and flexibility at a wide range of bit rates.

LAS VEGAS – April 8, 2013 (NAB Booth SU9118) – Fraunhofer IIS, the world's renowned source for audio and multimedia technologies, and Unified Streaming (USP), the provider of cross-platform video-streaming technologies, today announced their partnership combining USP's adaptive streaming expertise with Fraunhofer's High-Efficiency AAC (HE-AAC) multichannel audio codec. This collaboration extends the ecosystem for HE-AAC MPEG-DASH streaming, enabling broadcasters and service providers to deliver the best possible MPEG-DASH (Dynamic Adaptive Streaming over HTTP) streaming experience for video and audio-only services.

Fraunhofer IIS and Unified Streaming collaborated on the optimization of the USP streaming tools for use with HE-AAC, today's most efficient, flexible and high-quality multichannel and stereo audio codec. HE-AAC offers the flexibility to encode up to 48 audio channels in various configurations including mono, stereo 5.1 and 7.1 surround. Low data rates – such as 5.1 surround sound at only 64 kbit/s – allow surround sound to be streamed without the need to switch to stereo when bandwidth gets constrained. Therefore it can ensure a truly seamless adaptive switching experience. In audio-only services such as Internet radio, it can improve the quality of experience for listeners and enable a more efficient large-scale deployment of Internet delivered content.

"USP enables broadcasters and service providers such as the BBC or RTL Nederland to stream media content from one unified source to multiple clients and devices to ensure scalable high-quality video delivery," said Dirk Griffioen, CEO of Unified Streaming. "USP transforms industry standard webservers to powerful streaming servers adding Fraunhofer's HE-AAC for a rich and immersive multichannel experience."

"Fraunhofer's HE-AAC codec in combination with USP's extensive streaming know-how creates a very powerful tool for the encoding and packaging of content for real-world MPEG-DASH deployments," said Harald Popp, head of the Multimedia Realtime Systems department at Fraunhofer IIS. "On the playback side, we partnered with DASH client implementers such as BuyDRM and castLabs to enable a secure end-to-end ecosystem for the use of HE-AAC Multichannel in streaming."

HE-AAC has emerged as the global standard for broadcasting and streaming multimedia content, including Internet radio or web TV, digital radio and digital television. It is natively supported by Android Jelly Bean, iOS, Windows 7/8, Mac OS, the leading HTML5 browsers and as a result, has been deployed in over 5 billion consumer electronic devices worldwide. Therefore service providers in many cases only need to encode their content in a single audio format, HE-AAC Multichannel.

Fraunhofer and Unified Streaming are members of the DASH Industry Forum (DASH-IF), a consortium of industry leaders who promote the adoption of the new adaptive streaming standard. DASH-IF recently published the DASH264/AVC Implementation Guidelines (www.dashif.org) which make HE-AAC the mandatory stereo and optional surround codec for DASH streaming. As an active member of MPEG and through continuous involvement in all AAC-related standardization activities, Fraunhofer IIS is able to offer high-quality, product-ready HE-AAC encoder and decoder implementations incorporating the latest features such as the 7.1 profile and full MPEG/DVB metadata support.

Fraunhofer IIS, Unified Streaming, castLabs and BuyDRM are demonstrating MPEG-DASH surround sound streaming on Android at NAB 2013, Booth # SU9118. For additional information visit http://www.iis.fraunhofer.de/amm.

About Fraunhofer

The Fraunhofer IIS Audio and Multimedia division, based in Erlangen, Germany, has been working in compressed audio technology for more than 20 years and remains a leading innovator of technologies for cutting-edge multimedia systems. Fraunhofer IIS is universally credited with the development of mp3 and co-development of AAC (Advanced Audio Coding) as well as technologies for the media world of tomorrow, including MPEG Surround and the Fraunhofer Audio Communication Engine.

Through the course of more than two decades, Fraunhofer IIS has licensed its audio codec software and application-specific customizations to at least 1,000 companies. Fraunhofer estimates that it has enabled more than 5 billion commercial products worldwide using its mp3, AAC and other media technologies.

The Fraunhofer IIS organization is part of Fraunhofer-Gesellschaft, based in Munich, Germany. Fraunhofer-Gesellschaft is Europe's largest applied research organization and is partly funded by the German government. With 20,000 employees worldwide, Fraunhofer-Gesellschaft is composed of 60 Institutes conducting research in a broad range of research areas. For more information, contact Matthias Rose, matthias.rose@iis.fraunhofer.de, or visit www.iis.fraunhofer.de/amm.

About Unified Streaming

Unified Streaming is a leading provider of cross-platform video-streaming technologies. Dedicated to helping companies create and execute smart video-streaming technologies, Unified Streaming products are in operation around the world, with customers ranging from broadcast networks and online content distributors to small companies and webcasters.
Unified Streaming solutions fit into existing frameworks (Apache, IIS, Lighttpd, Nginx), thus allowing for greater return on existing investment. Unified Streaming (USP) provides streaming from one encode simultaneously to multiple players and devices. In combination with various DRM technologies, this enables Unified Streaming customers to significantly reduce delivery cost and boost time to market in order to address a broader audience.