PRESS RELEASE

360° Video Solution at IFA 2016: wide panorama video experience with Smart-TV and mobile device

Fraunhofer FOKUS presents on the international trade fair IFA in Berlin a cloud-based 360-degree video solution: visitors in Hall 11.1, Stand 3, can explore an all-round video experience that brings high resolution movies close to reality on the Smart-TV and on mobile devices.

360° video is getting more and more relevant. In 360° video the full spherical image of any direction of view is available in every moment while the viewer can freely change her individual perspective of view. But there wasn't a solution for HbbTV yet because the source video material consumes too much bandwidth which results in a considerable processing load for the view projection and rendering.

The Fraunhofer FOKUS **360° Video Solution** makes viewing 360° video on HbbTV possible by performing the rendering of the individual view at server-side in a cloud based infrastructure. Only the selected view is streamed to the end device, which reduces the bandwidth needed. With the 360° Video Cloud Streaming Solution viewers can watch a high-definition 360 degree video on an HbbTV (Hybrid Broadcast Broadband TV)-TV or mobile device. Because the solution performs the rendering of the individual view on server side there is a low battery drain for mobile devices.

At the joint-stand of the Fraunhofer-Gesellschaft in the TecWatch-Forum researchers of Fraunhofer FOKUS are presenting the 360° Video Cloud Streaming solution, the HbbTV Application Toolkit (HAT), the DVB-T Probing System and the Open Content Decryption Module:

The **HbbTV Application Toolkit** (HAT) is an easy and cost-efficient way for application developer and content creators of broadcasters to produce HbbTV

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applications for their program. With this toolkit Fraunhofer FOKUS offers templates and components to content creators to create HbbTV applications such as video galleries. Additional plug-ins support Companion Screen and Media Synchronization conforming to the HbbTV 2.0 standard.

With the **Broadcast Probing System** Fraunhofer FOKUS offers a cloud-based system for monitoring digital broadcast networks (DVB-T1/T2/S/C) to detect potential misconfigurations and service degradation in broadcasts. This feedback helps operators to optimize the broadcast operations.

With the **Open Content Decryption Module** (OCDM), a Content Decryption Module (CDM) is accessible as an open source solution on GitHub and compliant to W3C Encrypted Media Extensions (EME) specification. It is used with HTML5 based browser environments and enables DRM interoperability for license retrieval and management for handling and decoding of protected media data.

Visit Fraunhofer FOKUS on September 2 – 7, 2016, at the joint-stand of the Fraunhofer-Gesellschaft at Berlin Exhibition Grounds in Hall 11.1, Stand 3.

Lectures by Fraunhofer FOKUS at IFA:
Prof. Dr. Manfred Hauswirth, Director of Fraunhofer FOKUS: »The Next Level of Mobility and Connectivity« | September 5, 2:25 PM at the IFA Summit Panel

Be invited to our »**Fraunhofer Sneak Preview IFA**« on Tuesday, August 30, 2016 von 3 PM – 5 PM for background information and interviews.
Venue: 3IT Center, Salzufer 6, 10587 Berlin / Entrance: Otto-Dibelius-Strasse
Registration: alliance-dc@iis.fraunhofer.de

More information:

http://www.fokus.fraunhofer.de/go/ifa

OCDM available on GitHub: http://s.fhg.de/ocdm

HAT available on GitHub: https://github.com/fraunhoferfokus/HAT

High-resolution images are available on request.

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Fraunhofer FOKUS
Fraunhofer FOKUS, based in Berlin, Germany, explores how communication networks can contribute to more convenient and more secure living. Thus, the institute addresses important challenges in society, including access to information, smart mobility and modern governmental administration that is efficient as well as accessible from everywhere.
Besides technical infrastructures, Fraunhofer FOKUS develops manifold practical solutions. As an independent research institute, Fraunhofer FOKUS is an important link between industry, governmental administration and the people. The institute is developing the communication architecture of tomorrow both on its own and together with strong partners. In particular, Fraunhofer FOKUS is specialized in the development of multi-domain networks as well as interoperable, user-centric solutions. With 25 years of experience, the institute is one of the most important ICT research partners in Germany.

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