Marshall Space Flight Center – Huntsville, Alabama – November 2, 2015, NASA Successfully Verifies Interoperability of VSF's TR-01 JPEG2000 Video over IP Specification

At an event held on October 20, 2015 at Marshall Space Flight Center, NASA personnel conducted successful testing to verify interoperability between five vendor implementations of the Video Services Forum's (VSF's) Technical Recommendation 01 (TR-01). TR-01 uses existing standards to define interoperable profiles for real time streaming of a broadcast profile JPEG 2000 codestream wrapped in MPEG2TS, with audio and ancillary data and encapsulated in IP with FEC. The verification was necessary in order to include TR-01 as an acceptable technology for use with multi-agency spaceflight operations. "We need to show more than one vendor implementation interoperating with each other", said Walt Lindblom, Video Engineer - NASA Imagery Experts Group. "This was successfully demonstrated during our test this week".

The five vendors participating in the event were Ericsson, Evertz, Imagine Communications, Media Links and Nevion. The source material provided by NASA was encoded at 720p/59.94 Hz. Tests were conducted at a wide range of bit rates, and multiple vendors were able to decode images at bit rates as low as 20 MBits/sec.

"The verification of interoperability at this event is significant for several reasons", said Brad Gilmer, Executive Director of the VSF. "Of course it was important that we proved to NASA that interoperability has been achieved." "But perhaps more important is the speed with which this event came together – a little over a month from the first request from NASA to having five vendors together in a room demonstrating interoperability." "That is amazing, and is an indication of the level of interoperability that has been achieved, but also shows the commitment of these vendors to supporting truly interoperable technology."

NASA is an active partner in the Consultative Committee for Space Data Systems (CCSDS). CCSDS includes all the major space agencies in the world. The Motion Imagery Applications (MIA) working group within CCSDS has developed a standard for video applications and operations for joint spaceflight missions, and there was an opportunity to add TR-01 to the standard as an accepted technology, but first, multi-vendor interoperability had to be demonstrated. Now that hurdle has been crossed, and it is anticipated that soon, CCSDS will open a path for TR-01 JPEG2000 systems to be used for space-based and ground operations

worldwide.   TR-01 can be downloaded here:
http://videoservicesforum.org/technical_recommendations.shtml

About The Video Services Forum

Founded in 1997, the Video Services Forum (VSF) is an international association composed of service providers, users and manufacturers dedicated to interoperability, quality metrics and education for video networking technologies. The organization's activities include providing forums to identify issues involving the development, engineering, installation, testing and maintenance of video networking technologies; exchanging non-proprietary information to promote the development of video networking technology and to foster the resolution of issues common to the video services industry; promoting interoperability by contributing to and supporting development of standards by national and international standards bodies. Visit VSF online at http://www.videoservicesforum.org.

For more information about Ericsson company products including VSF TR-01 compatible JPEG-2000, visit www.ericsson.com

For more information about Evertz company products including VSF TR-01 compatible JPEG-2000, visit www.evertz.com

For more information about Imagine Communications company products including VSF TR-01 compatible JPEG-2000, visit www.imaginecommunications.com or contact brian.ford@imaginecommunications.com

For more information about Media Links company products including VSF TR-01 compatible JPEG-2000, visit www.medialinks.com or contact info@medialinks.com.

For more information about Nevion company products including VSF TR-01 compatible JPEG-2000, visit www.nevion.com or contact jmorstol@nevion.com

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