IPTV Featured Article

December 15, 2008

Bringing User-Generated Content to IPTV with the Dilithium Content Adapter

By Richard Grigonis, Executive Editor, IP Communications Group

IPTV (News - Alert) makes unlimited numbers of channels possible, service providers are scrambling for ways to funnel new forms of content to their subscribers. One interesting device that can help them in this regard comes from Dilithium founded in Sydney, Australia, and now a global leader in converged video solutions with operations on 5 continents and customers in 50 countries.

Dilithium grew out of participation on the ITU-T H.324/H.324M workgroup by Dr. Marwan Jabri, the company's founder and CTO. Over the course of his nearly two decades of research in academia and industry, Dr. Jabri developed intelligent signal processing algorithms for multimedia coding and transcoding. He also developed some of the first protocol stack implementations of the H.324/H.324M standard while a Professor at the University of Sydney in Sydney, Australia.

Jabri recently revealed to Yours Truly his company's latest innovation to bolster the IPTV world: "Dilithium has released the Dilithium Content Adapter [DCA], a scalable video transcoding and transsizing solutions that can automate the real-time adaptation and delivery of video content over multiple networks to any device. Some of the applications that we are targeting with this product are in the IPTV space. Specifically, we're targeting the convergence of the user-generated content space and the social networking media space with IPTV.

For example, how IPTV service providers can provide access to the back of YouTube (News - Alert) as well as other user-generated content sites and convert their video and audio streams into a format supported by home setup boxes so that the content can be presented to the user as IPTV channels. YouTube is based on a Flash format, and the video codec could be the H.263 codec and the audio could be AAC [Advanced Audio Coding] or MP3 or a variation of these. Setup boxes won't process Flash content and they don't support H.263 or the audio codecs. Instead, the boxes support H.264 or a variation of it and as far as transport is concerned, they support the MPEG-2 Transport Stream [MPEG-2 TS] a special format for transmitting MPEG [MPEG-1, MPEG-2, or MPEG-4] video muxed with other streams.

It's used a great deal in digital television and for streaming across networks, including the Internet, and it's used in combination with a realtime semiprotocol configuration. The setup box on one side connects the infrastructure using its protocols and supported video and audio codecs, while the content on the other side is available in different formats using different access methods used by providers such as YouTube. So our DCA mediates by taking the content from YouTube or any other site with a industry standard format and then transforms it, providing it to the IPTV end user in a format that's supported by his or her set-top box from a transport and video/audio codec perspective."

The DCA can call upon industry-standard PHP as a common scripting language, so it can leverage a wide spectrum of standard interfaces to other systems. DCA also supports many

service and billing models, including dynamically generated content, subscription services and pay-per-view. It can also be scaled from small-scale trial installations of tens of sessions through to distributed systems suitable for very large scale services via service node clusters.

“The concept here is that the IPTV space is becoming very competitive and service providers are looking at ways they can differentiate their offerings by bringing in user-generated content as well as well as social media networking,” says Jabri. “In this context, the solution that we have, the DCA, is designed to take any content on a site such as YouTube or any site that has content in a specific format, or even live content, that can be provided to the IPTV user on specific channels.”

“This idea has garnered a great deal of interest in Europe,” says Jabri. “We’re working with a provider over there to test the service with actual IPTV users. There’s such interest in making the user-generated content space accessible over IPTV channels because it makes available a huge amount of video content and this can help bring the advertising industry into this IPTV play in a way that could be novel and new compared with what IPTV is delivering today.”

“So this is what we’re targeting today,” says Jabri. “Obviously, as a product, the DCA will have a play in the IPTV world, as there has been a huge investment in the IPTV space in terms of service providers having deployed systems but who are still waiting to see how they will be monetizing all of this. The challenge as we see it is that, in the countries where IPTV has been deployed the service providers haven’t yet seen the upside in revenue. Bringing in the advertising with the help of the user-generated content [UGC] angle could be very interesting and profitable.”

The DCA builds on Dilithium’s pioneering technological developments in the world of 3G mobile video solutions. It has customers in more than 50 countries covering 800 million subscribers, and it holds 200+ patent and patent pending technologies.

Richard Grigonis is Executive Editor of TMC (News - Alert)’s IP Communications Group. To read more of Richard’s articles, please visit his columnist page.

http://iptv.tmcnet.com/topics/iptv/articles/47368-bringing-user-generated-content-iptv-with-dilithium-content.htm