ONEMedia
OPEN NETWORK ENABLED

DEMONSTRATION
NATIONAL ASSOCIATION OF BROADCASTERS CONVENTION
WYNN HOTEL
APRIL 13-15, 2015

ONEMedia is building the Next Generation Broadcast Platform

ONE Media is involved in the creation of the "Next Generation" broadcast transmission platform for the television industry. The platform is designed to accommodate and extend the existing high power/tall tower broadcast infrastructure and associated television business models, while, for the first time, supporting delivery of robust vehicular and pedestrian mobile broadcast television and other data services to all portable devices.

In concert with its joint venture partners, Sinclair Broadcast Group and Coherent Logix, ONE Media is at the forefront of designing industry standards encompassing its flexible and enhanced vision for broadcasting. The company is working closely with broadcast industry peers, content owners, equipment manufacturers and regulators to devise an adaptable platform, capable of supporting traditional television and a host of new data applications as broadcasting evolves in the competitive content distribution space.

The "Open Network Enabled" moniker signifies an IP (Internet Protocol)-based wireless broadcast infrastructure that can deliver both traditional linear television programming with exceptional, ultra-high definition capability receivable deep inside buildings and to portable and mobile devices and also data services that leverage broadcasting's enormously efficient one-to-many architecture. This Next Generation standard will also enable broadcasters to extend the reach of station signals using Single Frequency Networks that efficiently optimize the digital transport stream to reuse the same frequency multiple times without interference to the main broadcast transmission thereby reducing reliance on translators using multiple channels. The addressable feature of the transmission facilitates coding that will permit unique geographical "zoning" of programming, advertising and data services, supporting expansion of services that broadcasters can offer.

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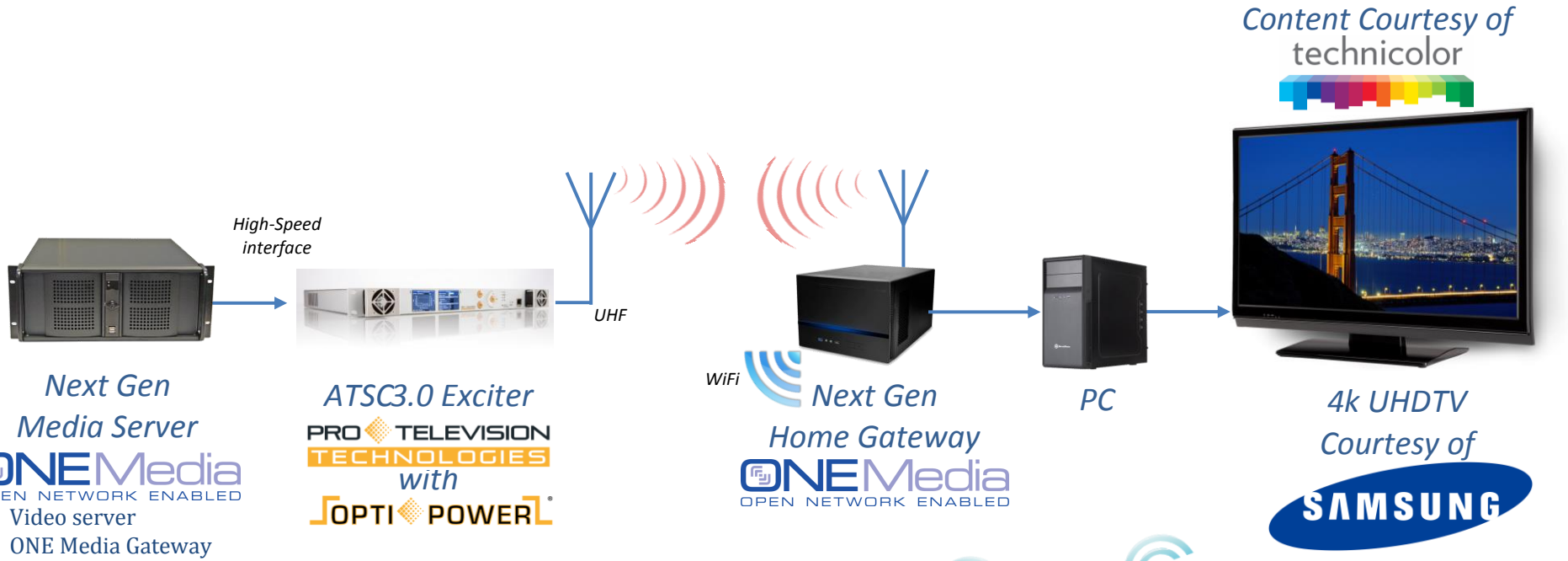
ONE Media has designed, proposed and is building a Next Generation transmission platform for delivery to the Advanced Television Systems Committee, the national standards setting co-operative, for its consideration in its process to adopt a substantial upgrade to the current specification. The consensus adoption of a new ATSC 3.0 standard by the broadcast and consumer electronics communities will embody advanced capabilities, several of which are demonstrated today by ONE Media.

On display is a demonstration of ONE Media's ATSC proposal over a standard 6 MHz channel used by the broadcast industry as allocated by the FCC. Three streams of content are being transmitted over the single channel, demonstrating fixed and mobile reception.

Transmission employs the ONE Media waveform generator (that will be integral to new broadcast transmitters) broadcasting UHDTV and HDTV content (courtesy of Technicolor) coupled with a commercial ProTV exciter. For fixed reception to the large 65" television monitor, the associated set-top box receives an over-the-air signal and is connected to a prototype decoder, which, in turn, is wired to the Samsung, High Dynamic Range-capable TV monitor displaying high quality video content compressed with the most current ATSC-proposed MPEG HEVC standard.

To demonstrate mobile reception to a tablet and smart phone, the set-top box receiving the Next Gen over-the-air signal uses WiFi for the connection to the portable devices featuring local news and sports content. The compression standard is that currently used by broadcasters to stream their content over the Internet. Using WiFi demonstrates that the Next Gen platform can be deployed even before chipsets are integrated into receiver display devices (televisions) that, ultimately, will receive the over-the-air signal directly from broadcast towers.

Live ATSC 3.0 demonstration in Wynn Suite



See also:

- VORTEX Exciter on TeamCast's booth #C1730
- DTV Transmitters on Comark's booth #SU3021