

March 24, 2004

## **Japan Broadcasters Adopt AVC/H.264 Video Coding for Mobile Digital Terrestrial Broadcasting**

### *Accord Reached with MPEG LA on Patent Licensing Terms*

Tokyo March 24--In a joint press conference with MPEG LA today, Japan broadcasters NHK, TBS, NTV, TV Asahi, Fuji TV and TV Tokyo announce their adoption of AVC/H.264 Video Coding for mobile segment digital terrestrial broadcasting. A basic agreement is also announced between the broadcasters and MPEG LA on royalties and other terms of license under essential patents owned by many parties to be offered as part of a joint license.

The patent licensing accord is the result of discussions over many months to assure both the practicality and applicability of the license terms to Japanese broadcast conditions. Under the accord broadcasters will have the option of paying a one-time fee of US \$2,500 for each encoder using in transmitting the AVC/H.264 video. The one-time fees will be offered as an alternative to annual fees. They will cover the use of AVC/H.264 video for free cable and free satellite as well as free terrestrial broadcast television.

In addition, it is recognized that broadcasters in developing countries have different circumstances that may require further considerations.

### **Statement from Japan Broadcasters**

“Digital Terrestrial Broadcasting in Japan began in December 2003. Through these Digital Terrestrial Broadcasts, there had been plans to implement broadcast services for mobile personal receivers unlike any seen before in the world. Problems were encountered, however, with regard to patents for the video coding technologies used for these services, and as a result there was no firm schedule for when these services would be realized.

These patent issues have now been essentially resolved with regard to “AVC/H.264,” the latest form of video coding technology. This resolution represents a major step forward in terms of achieving mobile broadcast services using AVC/H.264 as the coding technology. From this point on, it will be necessary to undertake various tasks, including the establishment of specifications for receiver terminals and ARIB standards, the development of mobile personal receivers by manufacturers, and discussions with mobile communication operators, but we believe that it will be possible to initiate mobile broadcast services in the first quarter of the year 2006. When these services become a reality, any user will be able to enjoy the latest broadcasts easily, anytime, and anywhere. We consider this a truly groundbreaking event, both for broadcasters and for viewers.

This AVC/H.264 is an exceptional video coding technology that was developed not only by the patent holders but through the efforts of many companies and institutions throughout the world. We are pleased and honored to announce that through recent discussions with MPEG LA, the requests of the broadcasters – that is, the users – were reflected in the royalty terms, and that it will now be possible for this outstanding technology to be used in the field of broadcasting ahead of any other field in the world.

We are confident that MPEG LA will take into consideration the differing environments faced by broadcasters throughout the world, including those in

developing countries, to ensure that broadcasters around the globe may enjoy the benefits of this new AVC/H.264 technology. We would like to take this opportunity to once again thank MPEG LA and the holders of the AVC/H.264 patent.”

### **Statement from MPEG LA**

“We thank the Japan broadcasters for their cooperation in reaching this historic accord. Through the miracle of digital technology, the efficient use of limited bandwidth and high resolution once thought to be physically incompatible now make it possible for broadcasters and their publics to reach their full potential. What we witness here today is the further acknowledgement of the interdependence between content and technology. Both represent the height of human creative achievement, but one cannot exist without the other. Through the shared efforts of inventors and manufacturers who make technology possible and broadcasters who use it to deliver innovative services that inform and entertain audiences worldwide, lies the key to technological advancement. This represents a partnership in the truest sense of the word. By their

visionary leadership and tireless service delivering free television to all the public, broadcasters make it possible for consumers to enjoy the fruits of this cooperation and experience the age of high definition television today. We thank the patent holders who agree to license their technology under these terms, and we salute the broadcasters for their public devotion.”

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### **NHK (Japan Broadcasting Corporation)**

NHK is Japan’s sole public broadcaster with 54 stations across Japan, financed by the audience fee. NHK currently serves domestic audiences via five television (two terrestrial and three satellite channels) and three radio services which provide a diverse range of programs. NHK has been conducting research and development on Hi-Vision (HD) since 1964, and now almost 80-90 % of General TV is broadcast in HD. NHK also explores future broadcasting services, and has been conducting research on further advanced technology.

### **TBS (TOKYO BROADCASTING SYSTEM, INC.)**

TBS, Tokyo Broadcasting System Inc. started broadcasting in 1951. TBS brings Drama, Variety, Music, Sports and News programs to 120 million Japanese people. With its 27 affiliated TV stations and 33 Radio stations, TBS programs are watched and listened nationwide. TBS group now have satellite broadcast channel BS-i, C-TBS, and 24 hours news channel Newsbird. We have started digital broadcasting since December 1 last year.

### **NTV (Nippon Television Network Corporation)**

NTV, celebrating its 51st anniversary, is the oldest and largest commercial broadcaster in Japan. Its high-definition television systems and state-of-the-art digital broadcasting facilities allow NTV to distribute the latest information as we

enter a new era of multimedia broadcasting.

### **TV Asahi Corporation**

TV Asahi Corporation is one of the 5 major key commercial based broadcasting companies, with affiliated broadcasting companies covering Japan. We have an established reputation in news and culture programs. With our fully digitalized headquarter which is ready to correspond from data broadcasting cellular phone to the internet content, we are vigorously looking forward to provide contents and establish new services in any digital format.

### **Fuji Television Network, Inc.**

Over the last 45 years, Fuji Television, Japan's foremost commercial broadcaster, has been captivating audiences around the globe with its extraordinary programming and thrilling motion pictures. So when terrestrial digital broadcasting began in December 2003, it became the common mission of the 28 Fuji network stations to deliver the highest quality digital broadcasts to audiences around the country while continuing existing analog services. Also going hand-in-hand with Fuji TV's commercial channels, are its high definition satellite channel, and three standard definition satellite channels. In addition, Fuji TV also provides an array of content to subscribers via mobile phones and the Internet.

### **TV TOKYO Corporation**

TV TOKYO, one of the commercial-based broadcasters as key stations, started its (analog) TV service in 1964, and also launched terrestrial digital broadcasting in 2003. TV TOKYO currently broadcasts, through the TXN Network of six TV stations, to 32 million households in Japan, accounting for 68% of the entire nation and covering Japan's major commercial centers - Tokyo, Yokohama, Osaka, Nagoya, Okayama, Takamatsu, Sapporo and Fukuoka. TV TOKYO produces and broadcasts a broad variety of programs focused on Business News, Anime (Animation) and Infotainment (Information-Entertainment).

### **MPEG LA, LLC**

MPEG LA successfully pioneered one-stop technology platform licensing with a portfolio of essential patents for the international digital video compression standard known as MPEG-2. One-stop technology platform licensing enables widespread technological implementation, interoperability and use of fundamental broad-based technologies covered by many patents owned by many patent holders. MPEG LA provides users with fair, reasonable, nondiscriminatory worldwide access to essential patents from multiple patent holders in a single transaction as a non-exclusive alternative to entering into separate license agreements with individual patent holders. MPEG LA is not related to any standards agency and is not an affiliate of any patent holder. In addition to MPEG-2, MPEG LA licenses portfolios of essential patents for the IEEE 1394 Standard, the DVB-T Standard, the MPEG-4 Visual Standard and the MPEG-4 Systems Standard. MPEG LA also is facilitating a license for the AVC/H.264 Standard and for DRM Reference Model v 1.0. For more information, please refer to <http://www.mpegla.com>, <http://www.1394la.com> and <http://www.dvbla.com>.

### **AVC/H.264 Video Coding**

AVC/H.264 Video Coding refers to the MPEG-4 Part 10 AVC/H.264 Standard, an advanced video encoding and decoding technology jointly developed between the Moving Picture Experts Group (MPEG) of the International Standards Organization/International Electrotechnical Commission (ISO/IEC) and the Video Coding Experts Group (VCEG) of the International Telecommunications Union (ITU).

### **1 segment service**

Digital terrestrial broadcasting in Japan offers new services. In addition to HDTV programs that can be watched on home TVs, it is expected to enable viewers using mobile personal receivers to receive low-bit-rate images. These services will be offered simultaneously on the same broadcasting channel. Technically, the frequency bandwidth of one channel for digital terrestrial broadcasting is divided into thirteen segments. Twelve of them will be used for home television viewers, and the remaining one to provide images for portable terminal users. Because of this allocation, the latter is sometimes called the "1-segment service."