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The MPEG Patent Pool -- another way to go?

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Topics

- Why me?
  - IPSEVA – what and who is it?

- Patents and Standards
  - Basic problems
  - Trying solutions
    - IPR Policies of SSO’s
    - Patent Pools
  - MPEG 2 started it all

- Conclusions
Why me?

- Senior Vice President of Robert Bosch GmbH, and Head of Corporate Intellectual Property
- Over many years active in the elaboration of IP policies in the context of technical standards, e.g. at ETSI (European Telecommunications Standards Institute)
IPSEVA

**SEVA** means "service" in Sanskrit

- Intellectual Property Services for Sustainable Energy Ventures

- IPSEVA stands for:
  - **Focus** on sustainable energy and environmental technology
  - **Expertise and experience**
  - Globally encompassing **international network**

- Co-principal: **Dr. Cynthia Cannady, Esq.**, member of the Bars of the State of California and the District of Columbia, Los Angeles, CA, USA

- [www.IPSEVA.com](http://www.IPSEVA.com)

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Cynthia Cannady and Bertram Huber, each, operate their own independent legal practice. They have founded IPSEVA and are committed to the same goals. They closely cooperate in the best interest of their respective clients.
Relevance for Standards?

- UNFCC (UN Framework Convention on Climate Change) discussions

- Strong pressure - and high expectations - from developing and emerging countries, esp. CN, BR, IN, ZA and others regarding technology transfer and compulsory licensing
Basic Problems with Standards & IPR

- Exclusivity < > Free competition

- Monopoly as exception from the rule

- Slower dissemination, complete blocking

- Anti-trust concerns!

- Number of patents incorporated in standards has strongly increased during the recent 20 years
Solution by IPR Policies of SSO’s ?

- Obligation to grant IPR licenses at FRAND conditions
- Remaining „legal“ (IPR policy) problems:
  - Nonparticipants in the standard setting process
  - Partes „hiding“ their IPR
  - Partes selling their IPR later
- Remaining practical problems:
  - Often necessary to negotiate with many IPR holders
    - factual entry barrier
- Anti-trust authorities, courts may help (without going to the extreme of compulsory licensing)
Before the First Global Patent Pool

- Analogue technologies dominate telecommunications and consumer electronics until mid-1980s
- Digital technologies emerge in telecommunications, esp. in fixed network technology (transmission: SDH, SONET; switching: EWSD, S12) and mobile communication (GSM), and in consumer electronics, esp. in digital audio and video equipment (CD, DVD, …)
- In telecommunications, standardisation always important: ITU, CEPT (where „GSM“ originated)
- In consumer electronics both proprietary solutions and standardized (ISO) solutions play a role
Change in IP Environment, Practices

- Widespread cross licensing among established players, In telecommunications encouraged by operators

- Open procurement offers players new markets and leads to new relationships

- New technologies, such as 2G mobile communications, introduce new players
Focus on IP issues in Standards

**GSM**
- Operators press to continue procurement without caring about IPR
- Manufacturers seek to keep control over their IP – as the fruit of their (often immense) R&D efforts
  (Also: big differences among manufacturers in their attitude via-à-vis IPRs, at least in the early years)

**ETSI**
- GSM debate taken up and extended
- Years of discussions culminate in IPR Policy based on FRAND licensing

**ITU, ISO, IEEE** also seek FRAND patent declarations
MPEG 2 was the Beginning

“MPEG LA's MPEG-2 Patent Portfolio License provides access to essential patent rights for the MPEG-2 Video and Systems coding standards used in set-top boxes, DVD players and recorders, TVs, personal computers, game machines, cameras, DVD Video Discs and other products. Wide acceptance of the MPEG-2 Patent Portfolio License has helped produce the most widely employed standard in consumer electronics history.”

MPEG LA Homepage
Technical basis of MPEG 2

- Bitstream
- VLD
- IQ
- IDCT
- +
- Video image

- Decode control
- MC
How it Started

- ISO-MPEG: standardisation with more than 50 participants, mainly telecommunication and consumer electronics
- Standardisation work started July 1990, first standards approved November 1994
- Technically highly complex
- Initially expensive hardware implementations
Activities outside ISO-MPEG

- Initiative *outside* ISO-MPEG trying to address IPR issues; Main driver: Baryn Futa, VP, COO, CableLabs
- Goals established by April 1994:
  - Who owns patents needed for MPEG 2
  - Structure of entity to manage licensing
- Ken Rubenstein of Proskauer Rose engaged to identify patent holders
- Identified patent holders (after months of discussions) announce licensing terms in March 1995
**Creation of MPEG LA**

- **Separate entity created**
  - To license in and out
  - To decide whether patents are standard-essential or not

- **The MPEG LA® Licensing Model** enables access to essential IPR owned by multiple IPR owners in a single transaction as an alternative to individual licensing

- **MPEG LA**
  - is granted a non-exclusive sublicense from essential IPR owners,
  - collects and distributes royalties for the benefit of the essential IPR owners,
  - and is paid an administrative fee from royalties collected

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Other important Elements

- Non-exclusive
- Freedom of Licensors and Licensees to develop competing products and standards
- Independence and trust
- Organized as LLC
- Original intention of one-stop-shop largely reached
- Protection of interests of all parties concerned
Sart of Operations 1997

- Initially 8 Licensors, grew to 26
- Began with 25 patent families, now 159 (more than 850 patents in 57 countries)
- MPEG-2 royalty rates have been reduced four times
- Over 1500 Licensees
Owners of MPEG2 Essential Patents

- Alcatel Lucent
- Bosch
- British Telecom
- Canon
- CIF Licensing
- Columbia University
- France Télécom
- Fujitsu
- GE Technology
- General Instrument
- Hitachi
- JVC
- KDDI
- LG Electronics
- Matsushita
- Mitsubishi
- NTT
- Philips
- Samsung Electronics
- SANYO
- Scientific Atlanta
- Sharp
- Sony
- Thomson
- Toshiba
Covered Products

- TV set-top boxes
- Integrated TV sets
- DVD players and recorders
- DVD discs
- PCs with MPEG-2
- Game consoles
- Cameras

- Sales of 2.5 trillion USD covered (!)
- MPEG LA claims market is close to be fully licensed
Conclusions

- For a long time, antitrust authorities were suspicious vis-à-vis patent pools.
- They were seen, e.g., as a price-fixing agreement between competitors.
- But if they only comprise essential patents (i.e., they cover complementary technologies, not substitutable technologies) they are useful and necessary.
- Patent pools are pro-competitive.
Conclusions (2)

- Patent pools are beneficial for all parties concerned: IPR owners, licensees, consumers
- Patent pools cannot avoid that IPR holders stay outside
- Patent pools cannot solve the problem of too high a cumulative maximum royalty (but the market – or the anti-trust authorities/courts - will sort this out, if need be)
- Best effect (from market/competition perspective) would have patent pools already formed *before* start of the standardisation work (but this is usually not likely to happen...)

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Thank you very much for your attention!

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