Will new IEEE standards incorporate patented technologies under the proposed patent policy?

Ron D. Katznelson, Ph.D., IEEE-USA IP Committee*
IEEE San Diego Section.   December 23rd, 2014

*Any opinions expressed in this presentation are those of Dr. Katznelson and do not represent the official positions of IEEE-USA or IEEE.
Preliminaries

- **Standard-Essential Patent (SEP).** A patent is essential to a standard if implementation of the standard necessarily requires use of the invention covered by the patent.

- **FRAND.** The IPR policies of Standard Development Organizations (SDOs) often seek assurances that licenses for SEPs will be made available on *Fair Reasonable And Non-Discriminatory* – **FRAND** – terms
  
  - “Fair” and “Reasonable” do not require specific standard license terms
  
  - FRAND terms may include royalty, up front fee, and/or non-monetary terms, such as cross-licenses
  
  - FRAND terms result from bilateral negotiations; SDOs do not determine whether terms are FRAND, not even hypothetically

- FRAND commitments by SEP owners are made by Letters of Assurance (LOA), which are treated as legal contracts.

- SDOs’ membership are highly skewed towards users, implementers and licensees; in IEEE-SA: about **20,000** members with only about **470** LOA contributing entities

- Therefore, SDOs’ IP policy must balance the interests of implementers and SEP owners not by majority rule but rather by **consensus**.
IEEE Letter of Assurance (LOA) by SEP holders

- Assurance that Essential Patent Claims will not be enforced; or
- Assurance that a license for a compliant implementation of the standard will be made available to an unrestricted number of applicants on a worldwide basis
  - without compensation; or
  - under reasonable rates, with reasonable terms and conditions that are demonstrably free of any unfair discrimination; or
- A statement that Submitter is unable or unwilling to grant license
Considering contributions of inventions to a standards project

New technology patent owners often face a dilemma:

– Go to market through a standards process by contributing their inventions to a standard
  - **Advantages**: broad use, large markets; name recognition
  - **Disadvantages**: having to educate competitors; delay in market development; competition from large market incumbents; FRAND royalties and LOA risks

– Retain substantive market exclusivity through proprietary implementations
  - **Advantages**: recognized differentiation; control of proprietary technology; selection of strategic partners and licensees
  - **Disadvantages**: risk of being shut down by large market incumbents; may require larger investments

Katznelson-Kennedy: “Ask not what you can do for a standard, ask what a standard can do for you.”
Some SEP holder practices for negotiating FRAND commitments

- FRAND commitments through LOAs are carefully formulated and scrutinized before they are made.
- A transacted set of FRAND commitments represents the end-point of a bargaining process by multiple parties.
- Often LOAs are submitted only after a SEP owner and an initial group of implementers agree on licensing terms, forming a basis for the FRAND terms offered to others.
- Portfolio licensing is prevalent.
- “Blanket” LOAs offer important flexibility.
Concerns regarding the IEEE-SA Proposed Patent Policy

- The key proposed changes in IEEE-SA Patent Policy
  - Restrictive “one-size-fits-all” definition of “fair and reasonable terms” under FRAND commitments; royalty on SEP contribution only to the “Smallest Saleable Compliant Implementation”
  - Prohibits SEP owners from seeking injunctions until an adjudication and an affirming first-level appellate review is complete – practically denying injunctive relief for SEP holders
  - Limits SEP holders’ ability to require certain reciprocal licensing terms from licensees

- Lack of sound basis and written rationale for the changes
  - No evidence of patent “hold-up” or “royalty stacking” to warrant drastic change
  - Rather, existing evidence points to implementers’ “hold-out”
  - Implementers have remedies at law for relief from purported patent “hold-up”
  - Proposed policy disrupts and skews the balanced bargaining threat-points of FRAND licensing

- May remove the “F” in FRAND and suppress royalty levels to below fair market value

- Critical practical implications of the Proposed Patent Policy have not been thought-through; lacks business impact analysis; questions remain unanswered

- IEEE-USA IPC reviewed the IEEE-SA Proposed Patent Policy and adopted an opposing position as detailed in the supporting material
IEEE-USA IPC Position (adopted by a 14:1 vote)

- Standards incorporating patented inventions are essential for innovation and for IEEE’s mission
- Standard implementers have remedies at law for relief from SEP “hold-up”
- Inventors and developers of major technological advances have likely made substantial R&D investments and have a choice of appropriating returns from their inventions without participating in standards
- Deviating from existing definitions of FRAND disrupts the careful balance between technology contributors and standard implementers
  - SDOs should take no sides in legal disputes about FRAND; in very few disputes that do arise in litigation, the courts should be permitted to resolve matters on the basis of specific facts and circumstances of the case
- A FRAND commitment should not preclude award of reasonable royalties that are based on the market value of the contribution of the SEP to the end products implementing the standard
- SEP contributors’ right to seek injunctions should not be denied per se, maintaining bilateral symmetry with Implementers’ right to enjoin SEP contributors from enforcing “prohibitive orders” in some circumstances
What does the proposed definition of FRAND using the “SEP contribution only to the Smallest Saleable Compliant Implementation” mean?

**IEEE 802.11 SEP portfolio example**

<table>
<thead>
<tr>
<th>Proposed Patent policy</th>
<th>Existing policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEP portfolio contribution only to the “Smallest Saleable Compliant Implementation”</td>
<td>Interpreted by the court as market value of the SEP portfolio’s contribution to the standard-compliant end-product</td>
</tr>
<tr>
<td>“Reasonable Royalty” per router or computer for a SEP portfolio as argued by Defendant Intel: Should be limited to pennies “or fractions thereof”</td>
<td>“Reasonable Royalty” per router or computer for a SEP portfolio as determined by the court: $0.15</td>
</tr>
</tbody>
</table>


*A portfolio royalty prospect of a “fraction of a penny” will chase away technology developers from contributing to IEEE standards*
Feared consequences of IEEE-SA Proposed Patent Policy

- Departure from market-based licensing and royalty practices; skewed against technology contributors.
- Will suppress technology developers’ participation in IEEE standards – contributors will flee IEEE for competing SDOs that maintain market-neutral IPR policies. See letters of major technology contributors in the Board package.
- Studies of SDOs demonstrate the incentives for forum shopping technology contributors to respond to “sponsor friendly,” and less rigid, IPR policies, resulting in higher quality standards.\(^1\)
- IEEE-SA’s pattern of serial adverse shifts in IPR policy may erode confidence in IEEE-SA’s IPR policy stability.
  - A milder 2007 IEEE Policy change adverse to some SEP owners was objectionable to some; does it contribute to the observed 15% per year decline in LOA submission to IEEE since 2007?

Technology contributors write that the Proposed Patent Policy threatens their participation in IEEE standards

- Qualcomm
- Nokia
- Ericsson
- Nokia Siemens Networks (NSN)
- Alcatel-Lucent
- Blackberry (RIM)
- Siemens
- IBM
- InterDigital
- Panasonic
- Orange (France Telecom)
- SanDisk
- Fraunhofer
- General Electric

Contributed an aggregate of 45% of all IEEE declared SEPs in 2007-2013...

Source: IPlytics, GmbH (2014)
... and contributed an aggregate of 36% of all IEEE LOAs in 2007-2013

Fraction of IEEE LOAs contributed

Source: IPlytics, GmbH (2014)
Example Statements of Technology Contributors to IEEE standards

- **Nokia** (letter to IEEE of November 18, 2014):  
  “Nokia wishes to make it known that if the Proposed Modifications to Patent Policy come into force, **Nokia will not make its patents available for licensing under the Proposed Modifications to Patent Policy**” (emphasis in original).

- **Ericsson** (letter to IEEE of November 7, 2014):  
  “Given that Ericsson will not be able to provide LOAs under the new policy, design around Ericsson's technology would be necessary, but may not be practically feasible and is likely to result in significant loss in system performance or reliability. Depriving future IEEE standards of such superior solutions may cause future Wi-Fi standard releases to fail to meet market requirements.”
Q: How could different committees within IEEE arrive at such radically opposing positions? A: Affiliation and non-consensus

“An individual is deemed ‘affiliated’ with any individual or entity that has been, or will be, financially or materially supporting that individual's participation in a particular IEEE standards activity. This includes, but is not limited to, his or her employer and any individual or entity that has or will have, either directly or indirectly, requested, paid for, or otherwise sponsored his or her participation.” § 5.2.1.5, SASB Bylaws

Affiliation informs “corrective action” under § 5.2.1.3, SASB Bylaws, to avoid “dominance” by any particular “interest category.” No such balancing or consensus occurred at the PatCom.

### 2014 IEEE-USA IPC members voting on Position

<table>
<thead>
<tr>
<th>NAME</th>
<th>EMPLOYER</th>
<th>AFFILIATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keith Grzelak (Co-Chair)</td>
<td>Wells St. John PS</td>
<td>None</td>
</tr>
<tr>
<td>Adam Mossoff (Co Chair)</td>
<td>GMU School of Law</td>
<td>None</td>
</tr>
<tr>
<td>Maura Moran (Vice Chair)</td>
<td>Self/Retired</td>
<td>None</td>
</tr>
<tr>
<td>David Boundy</td>
<td>Self/Retired</td>
<td>None</td>
</tr>
<tr>
<td>Oliver Edwards</td>
<td>Self/Retired</td>
<td>None</td>
</tr>
<tr>
<td>Frampton Ellis</td>
<td>Self/Retired</td>
<td>None</td>
</tr>
<tr>
<td>Dan Fisher</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adam Goldberg</td>
<td>Self/Retired</td>
<td>None</td>
</tr>
<tr>
<td>Chris Katopis</td>
<td>Licensing Executives Society Int'l (LESI)</td>
<td>None</td>
</tr>
<tr>
<td>Jonathan Kaplan</td>
<td>Self/Retired</td>
<td>None</td>
</tr>
<tr>
<td>Ron Katzenelson</td>
<td>Self/Retired</td>
<td>None</td>
</tr>
<tr>
<td>Scott M. Lis</td>
<td>VIP/Meridian, Waterfront Software LLC</td>
<td>None</td>
</tr>
<tr>
<td>Dave Ostfeld</td>
<td>Strasburger &amp; Price</td>
<td>None</td>
</tr>
<tr>
<td>Gary Pisner</td>
<td>Pisner Law Firm, Magna Systems</td>
<td>None</td>
</tr>
<tr>
<td>George Willingmyre</td>
<td>Self/Retired</td>
<td>None</td>
</tr>
</tbody>
</table>

### Voting members, IEEE-SA PatCom Ad Hoc 2013

<table>
<thead>
<tr>
<th>NAME</th>
<th>EMPLOYER</th>
<th>AFFILIATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phil Wennblom (Chair)</td>
<td>Intel</td>
<td>Intel</td>
</tr>
<tr>
<td>Jim Hughes</td>
<td>Microsoft</td>
<td>Microsoft</td>
</tr>
<tr>
<td>David Law</td>
<td>Hewlett-Packard</td>
<td>Hewlett-Packard</td>
</tr>
<tr>
<td>Wael Diab</td>
<td>Broadcom</td>
<td>Broadcom</td>
</tr>
<tr>
<td>Alex Gelman</td>
<td>NETovations LLC</td>
<td>NETovations LLC</td>
</tr>
<tr>
<td>Don Wright</td>
<td>Self/Retired</td>
<td>Apple</td>
</tr>
</tbody>
</table>

### PatCom

### Voting members, IEEE-SA PatCom Ad Hoc 2014

<table>
<thead>
<tr>
<th>NAME</th>
<th>EMPLOYER</th>
<th>AFFILIATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phil Wennblom (Chair)</td>
<td>Intel</td>
<td>Intel</td>
</tr>
<tr>
<td>Jim Hughes</td>
<td>Microsoft</td>
<td>Microsoft</td>
</tr>
<tr>
<td>David Law</td>
<td>Hewlett-Packard</td>
<td>Hewlett-Packard</td>
</tr>
<tr>
<td>Hung Ling</td>
<td>Alcatel-Lucent</td>
<td>Alcatel-Lucent</td>
</tr>
<tr>
<td>Glenn Parsons</td>
<td>Ericsson</td>
<td>Ericsson</td>
</tr>
<tr>
<td>Don Wright</td>
<td>Self/Retired</td>
<td>Apple</td>
</tr>
</tbody>
</table>
IEEE-SA “rationale” and justification is unavailing

- IEEE-SA: “By adopting the Proposed Patent Policy, IEEE will be taking control of its own destiny preemptively – we do not want regulatory agencies dictating our Patent Policy”

- Response: why then does IEEE-SA let one DOJ Level 5 official control our Patent Policy?

- The fact is that competition agencies formally indicated otherwise:
The alleged SEP “Hold-Up” and “Royalty Stack” in Standards

- The ability of a SEP owner to demand more than the value of its patented technology and to attempt to capture the value of the standard itself is referred to as patent “hold-up.”
- If “hold-up” by one SEP owner existed, it would also harm other SEP owners in the same standard because it would jeopardize further adoption of the standard and limit the ability of others to appropriate returns on their technology.
- Moreover, High-Tech products use dozens or even hundreds of standards; “hold up” or “royalty stack” in even a single standard should be detectable.
- PatCom’s reason for changing the Patent Policy is DOJ’s Renata Hesse’s “challenge” in her 2012 speech at ITU
  - Spoke of hypothetical SEP “hold-up” and a theoretical related market failure
  - Suggested SDOs’ “experimentation” with their patent policies to address an hypothetical
- But no empirical evidence of “hold-up” offered. Is real “hold-up” plausible?
- In 2013-2014 major SDOs such as ITU and ETSI considered but declined to adopt such recommended patent policy changes
No empirical evidence found of SEP “Hold-Up” or “Royalty stack”

Indeed, SDOs adopted FRAND principles to ensure SEP licensing and avoid “hold-up” and “stacks,” recording decades of success.

Existing evidence points to the contrary; for example:

- **IEEE Ethernet 802.3 standard** has about 150 SEP declarations. Yet, end-user prices per Mbps for Ethernet network interface cards **declined by a factor of 100** during the patent terms of the 802.3 SEPs[1]

- **IEEE’s 802.11 standard** is covered by thousands of SEPs, of which 450 are declared. Yet, Defendant Intel’s allegation of “royalty stack” was rejected: “the best word to describe Defendants’ royalty stacking argument is theoretical ... given the opportunity to present evidence of an actual stack on 802.11n essential products, Defendants **came up empty**”[2]; Plaintiff Microsoft’s three experts all admitted they can provide **no example of any hold-up**[3]

---


"One of the most fascinating things about the policy debates in and around patents and by extension the intersection of patent and antitrust law, is that most of the debate is chock full of theory and supposition but completely devoid of empirical evidence..."

“Without evidence of ‘pervasive market failure’ in the standard setting space, the FTC and the U.S. Department of Justice should avoid the temptation to serve as ‘management consultant’ to standard setting groups and their members.

It is quite rare for antitrust agencies to come in, in the absence of evidence of market failure, and say, 'We have a better idea for how you should write your contract.' It doesn’t happen in other areas and there’s a really good reason why that doesn’t happen in other areas. The antitrust laws are chock full of admonitions from the Supreme Court about courts wanting to avoid administering prices and the like, and I think all of those same concerns apply to agencies in what really are royalty disputes between parties."
Competition Agencies do not require nor endorse such Patent Policy changes

- “I want to be clear, though, that implementation of these proposals has not been mandated by any of the division’s enforcement actions” — DOJ’s Renata Hesse, 2012 ITU speech

- The DOJ “concluded that [IEEE’s current] policy was a sensible way to preserve competition among technologies vying for inclusion in a standard, and stated that we had no intention of bringing an enforcement action against implementation of the policy” — DOJ’s Renata Hesse, 2014(!) GRC speech

- “Neither Agency [FTC & DOJ] advocates that [SDOs] adopt any specific disclosure or licensing policy, and the Agencies do not suggest that any specific disclosure or licensing policy is required.” — DOJ & FTC “Antitrust Enforcement and Intellectual Property Rights” (2007) p. 48

- “Recourse to injunctive relief is generally a legitimate remedy for patent holders in case of patent infringements. Moreover, SEP based injunctions should be available when there is an unwilling licensee.” “Q: Does the Commission outline what a reasonable royalty rate is? A: No. The Commission believes that courts and arbitrators are well-placed to set FRAND rates in cases of disputes.” — European Comm’n, Memo 14/322 (2014)
A favorable DOJ Business Review Letter (BRL) does not justify the Proposed Patent Policy nor shields IEEE from liability exposure to private antitrust court actions.

- A BRL states only DOJ’s enforcement intentions but nothing as to the legality of the conduct being reviewed. 28 C.F.R. § 50.6(7)(a).

- A BRL can only address future proposed conduct – the Proposed Patent Policy; it is not, and cannot be, an advisory re alleged antitrust law violations by IEEE-SA, PatCom or its members during the adoption of the Proposed Patent Policy.

- A BRL is merely an advisory of how the agency will exercise its investigatory or prosecutorial discretion, it is not a final agency action to which courts can defer.
Reversal can harm IEEE credibility

- FRAND terms are incomplete. "incomplete contracts" are economically more efficient in reaching bargaining success.
- Flexibility in *demanding* reciprocity licensing tracks market practice for other major SDOs. But IEEE-SA proposal denies SEP holders’ right to demand reciprocal licensing of SEPs even in related standards.
- ETSI 1993 IPR Policy,[1] is an example of a similar effort:
  - § 13 prohibited injunctions by SEP owners.
  - § 3.1 prohibited SEP owners from requiring reciprocal licensing, setting monetary consideration as sole basis for licensing.
  - Following a complaint filed against ETSI at the European DG Competition, ETSI backed down in 1994 and reverted to its previous IPR policy.

Incompatibility with legacy FRAND terms will grind complex standards under the Proposed Patent Policy to a halt

Consider incorporation by reference a normative standard A for which legacy LOAs were made, in a new Standard B promulgated under the Proposed Patent Policy.

—“Normative material is information required to implement the standard and is therefore officially part of the standard.” SASB Op. Man. 6.4.1

—Definition of “essential claim” subsumes essentiality to normative standards incorporated by reference

—SEPs for Standard A may be essential to Standard B
LOAs under the proposed patent policy require substantive SEP holder concessions beyond those in existing LOAs.

**Letter of Assurance**

- Agree to timely disclose known SEPs
- Agree to unlimited number of licensees
- Agree to FRAND terms
- Agree to royalties based on “smallest salable” implementation of any portion of the standard
- Agree not to enjoin infringers
- Agree not to require reciprocal cross-licensing even for related standards
- Agree to other constraints

**IEEE Standards**

IEEE Std 802.17-2005

IEEE Standard for Information Technology—Telecommunications and Information Exchange between Systems—Local and Metropolitan Area Networks—Specific requirements

Part 17: Resilient packet ring (RPR) access method and physical layer specifications

IEEE Computer Society
Sponsored by the LAN/MAN Standards Committee

22 September 2005

IEEE Standards
Building Careers & Shaping Public Policy
New standards under the proposed patent policy may be precluded from incorporating legacy standards as normative references.

New policy LOA

New standard

Commitment

Incorporation by reference

SEP holder

Legacy SEP holder

Legacy LOA

Commitment

Legacy Implementers

Operated under legacy policy

Implementers

Agree to timely disclose known SEPs
Agree to unlimited number of licensees
Agree to FRAND terms

Agree to disclose based on “smallest salable” implementation of any portion of the standard
Agree not to enjoin infringers
Agree not to require non-practicing entity cross-licensing, even for related standards
Agree to other constraints

IEEE Standards

Normative legacy standards

IEEE USA

Building Careers & Shaping Public Policy
New standards under the proposed patent policy may be precluded from incorporating legacy standards as normative references.

- Agree to timely disclose known SEPs.
- Agree to unlimited number of licensees.
- Agree to FRAND terms.
- Agree to royalties based on "smallest salable" implementation of any portion of the standard.
- Agree not to enjoin infringers.
- Agree not to require reciprocal cross-licensing even for related standards.
- Agree to other constraints.

Legacy SEP holder

Requested new LOA for legacy SEPs

New policy LOA

New standard

Commitment

Incorporation by reference

Legacy LOA

Legacy SEP holder

Operation under legacy policy

Legacy Implementers

Normative legacy standards
New standards under the proposed patent policy may be precluded from incorporating legacy standards as normative references.

Agree to timely disclose known SEPs.
Agree to unlimited number of licensees.
Agree to FRAND terms.
Agree to royalties based on “smallest salable implementation” of any portion of the standard.
Agree not to enjoin infringers.
Agree not to require reciprocal cross-licensing even for related standards.
Agree to other constraints.

Discriminates legacy licensees – may violate legacy FRAND commitments.
Present FRAND harmony facilitates seamless incorporation of legacy standards as normative references.
Example of a draft IEEE standard that may grind to a halt under the proposed patent policy:

IEEE 802.11ai Draft 3.1, Amendment: Fast Initial Link Setup

- New Normative References requiring new LOAs:

- **SEP owners**: Entrust Technologies; NTT, Orange, Univ. of Calif., RSA Data Security, CSCTT, NDS (Cisco), and Philips
Procedures contravene the SDOAA

- Procedures lacked “openness, balance of interests, due process, an appeals process and consensus” – the required elements of “Standards Development Activities” under the Standards Development Organization Advancement Act of 2004 (SDOAA) to gain antitrust safe-harbor
  - SDOAA specifically identifies as “Standards Development Activities” any actions relating to the SDO’s intellectual property policies
- IEEE-SA’s patent policy is inexplicably a part of its Board’s Bylaws rather than an instrument established under consensus-driven antimajoritarian safeguards as used in establishing IEEE technical standards
- Lack of these safeguards denies IEEE the statutory safe-harbor; may expose the IEEE to potential antitrust treble damages
- As all SDOs, IEEE-SA’s membership is highly skewed towards users, implementers and licensees. Consensus is essential
- Reference to the Katznelson August 2014 Memo suggesting a “restart” of the patent policy amendment under a consensus governance process
IEEE STANDARDS ASSOCIATION STRATEGY

Mission of IEEE-SA
To enable and promote the collaborative application of technical knowledge to advance economic and social well-being through the development of technical standards and related activities.

Core Values
Respect for consensus; due process; openness; global market relevance; technical integrity and excellence; collaboration and community building; innovation.

Vision of IEEE-SA
Be recognized as a preferred global provider of high-quality, market-relevant technology standards and of services that promote their universal adoption.

Strategic Goals
Efficiency, flexibility, and integrity of standards development process; Proactive and nimble business operation; Positive brand perception and differentiation; Strong global recognition, adoption and participation
Strong and constructive relationship with key stakeholders and collaborators Business line growth and expansion

IEEE STANDARDS ASSOCIATION STRATEGY

Mission of IEEE-SA
Advancing technology for the benefit of humanity by providing a globally open, inclusive and transparent environment for market relevant, voluntary consensus standardization.

Strategic Goals
Expand Global Presence; Continuously evolve the IEEE-SA processes and support resulting in globally used standards; Ensure IEEE-SA's Financial Sustainability; Be a Learning Community

Why has IEEE-SA abandoned our Core Values, Vision, and Positive brand perception and differentiation?
Changes at http://standards.ieee.org/about/strategy.html
(a) evidence (if any) that IEEE or IEEE-SA is harmed, or is threatened to be harmed, on account of its current patent policy;

(b) an identification of specific problems being addressed by the Proposed Patent Policy, citing factual evidence of such problems;

(c) a detailed explanation of each proposed change in the Patent Policy provisions and how it solves or remedies the problems identified and/or would provide significant benefit to IEEE;

(d) an identification of all IEEE current and draft standards by the number of normative standards they incorporate by reference; an explanation of how IEEE-SA's requests for new Letters of Assurance (LOAs) from Standard-Essential Patent (SEP) owners of legacy normative standards incorporated by reference in new IEEE standards subject to the Proposed Patent Policy will actually be fulfilled; and what action IEEE-SA will take when such SEP owners are unable to provide the new LOAs due to inherent conflict with their non-discriminatory license terms previously committed under legacy LOAs; and

(e) an explanation and a legal analysis of the merits, disadvantages, and the liability exposure of IEEE to third-party claims under US competition laws given the current non-consensus-based SASB governance system. A comparison of these to a potential alternative instrument whereby actions on the intellectual property policies of IEEE-SA are to be taken under consensus procedures as used for promulgating IEEE technical standards.
Conclusion

- Critical questions on IEEE-SA proposal remain unanswered. Major risks remain apparent, benefits to IEEE itself are not
- IPC Recommended that IEEE-SA be required to furnish substantive answers to the questions before further action is taken on the Proposed Patent Policy
- IEEE Board of Directors resolved on Nov. 23, 2014 that it would be the final arbiter as to adoption (not the IEEE-SA BOG)
- Q&A

END

Presenter: Ron Katznelson  ron@bileveltech.com
SUPPLEMENTAL SLIDES
Why is there a decline in SEP contributions to IEEE standards since 2007?

![Graph showing the decline in SEP contributions to IEEE standards since 2007.]

- **SEPs Declared in Letters of Assurance**
- **Total for other SDOs:** ETSI, ITU (including T and R), ISO, IEC, IETF, ANSI, TIA, ATIS, and Broadband Forum

**Graph Details:**
- **IEEE:**
  - 17% per year growth
  - Significance: \( p < 0.15 \)
- **Other SDOs:**
  - 12% per year growth
  - Significance: \( p < 0.25 \)

Why is there a decline in LOA contributions to IEEE standards since 2007?

- **IEEE**
  - 17% per year growth
  - Significance: $p < 0.08$

- **Other SDOs**
  - 1% per year growth
  - Significance: $p < 0.6$

Total for other SDOs:
- ETSI, ITU (including T and R), ISO, IEC, IETF, ANSI, TIA, ATIS, and Broadband Forum

**Sources:**
Sec. 6.2 places additional burdens and risks on LOA submitters if they become “deemed to be aware” of additional Patent Claim(s) that may be or become Essential Patent Claim(s) and requires that they shall submit an LOA stating their position regarding enforcement or licensing of such Patent Claims.

A commenter stated that some companies “are unlikely to give such assurance without unreasonable patent searches” – indicating concerns about inadvertent but fatal breaches of the LOA. Rejected comment # 19, 11/15/2006

How does IEEE-SA measure the effects of changes in its IP policy given specific articulated concerns? Could any of the 2007 changes in the IP policy have been a factor in the decline of IEEE’s LOA and SEPs market share?