IP Session

Patent Issues and Litigation in U.S.:
What Makes Good Innovations into Great IP?

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IP Session Schedule

- **U.S. patent system: overview**
  - (i) Unique U.S. patent features in patent procurement and enforcement
  - (ii) Trends of patent enforcement in U.S.
- **Patent litigation before U.S. federal courts and International Trade Commission (ITC)**
  - Litigation procedures and case study
- **Dealing with Non-Practicing Entity (NPE) in patent litigation**
  - (i) General considerations in NPE litigation
  - (ii) Attacking NPE assets via post-grant proceeding trial at USPTO
- **Building a strong patent portfolio**
  - Considerations and best practices
- Break
- **Panel discussion and Q&A**

Acknowledgment

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  - Dr. Bill Chen and Dr. Jie Xue of IEEE CPMT
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TPCA 台灣電路板協會
Taiwan Printed Circuit Association

ITRI
Industrial Technology Research Institute

CPMT
IEEE COMPONENTS, PACKAGING AND MANUFACTURING TECHNOLOGY SOCIETY

iMAPS Taiwan
台灣國際微電子暨構裝學會
INT'L MICROELECTRONICS AND PACKAGING SOCIETY- TAIWAN CHAPTER

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U.S. patent system: overview

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Patenting & Innovation: 4 Life Stages

- ***Developing technology***
  - Documentation & Confidentiality
  - Technology/IP ownership issues
- ***IP farming***
  - Patent filing v. Trade Secret
  - Patent Filing: What? When? Where? How?
- ***Getting through patent examination***
  - Invention description
  - Patent claim strategy
  - Cost, labor and patience
- ***Putting patents into commercial use***
  - Patent maintenance
  - Patent marking and enforcement
  - Post-grant patent invalidity attacks
  - Patent monetization

A Glance at U.S. Patent System

- U.S. patent system is more complex than most other patent systems
- Strong "pro property rights" laws and regulations
  - Allowing applicants/owners to fully protect patent rights
  - Multiple opportunities for patent claims including “child” filings
  - Multiple opportunities to correct and re-correct issued patents
- Unique post-grant proceedings before USPTO to challenge validity of patents
- Unique enforcement mechanisms via courts and ITC
  - Jury trial at district courts
    - Potentially getting large damage awards
  - Stopping product import via ITC
  - Discovery for evidence collection
  - USPTO does not have exclusive jurisdiction over patent validity
    - Courts and ITC can also determine patent validity issues
    - On certain invalidity grounds, a defendant must choose between USPTO or court as the sole litigation venue on patent invalidity

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Selected U.S. Patent Features under America Invents Act

Right to Exclude

- U.S. patent rights:
  - Every patent shall contain … a grant to the patentee, his heirs or assigns, of the right to exclude others from
    - making, using, offering for sale, or selling the invention throughout the United States or
    - importing the invention into the United States, and,
  - if the invention is a process, of the right to exclude others from using, offering for sale or selling throughout the United States, or importing into the United States
    - products made by that process, referring to the specification for the particulars thereof
- A patent owner has ***no affirmative rights to use*** patented invention
  - Freedom-to-operate (FTO) analysis
- Right to sue and to recover damages is part of the right to exclude
  - *Morrow v. Microsoft* (2007)
    - the right to sue for infringement cannot be separated from the exclusionary rights
    - A party who acquires only the right to sue without other exclusionary rights has no standing to sue

Joint Ownership in U.S.

- In many countries, a joint owner can profit from a patent without consent and without accounting to the other joint owner(s).
  - But a joint owner must obtain consent of other joint owner(s) to license/transfer/sell patent rights
- U.S. is different: ***a joint owner is free to do everything***
  - In the absence of any agreement to the contrary, each of the joint owners of a patent may make, use, offer to sell, sell, or import the patented invention, without the consent of and without accounting to the other owner(s); ***AND***
  - A joint owner can license or sell his rights in the jointly owned patent without consent of the other joint owner(s).

1-Year Grace Period under New “First Inventor to File”

- New "First Inventor to File" took effective on March 16, 2013
- Similar to Taiwan and other countries, the first publication by an entity creates an absolute bar to subsequent patent filings by others
- Different from limited 6-month grace period in Taiwan, U.S. has a new “personal” 1-year grace period for inventor publication
  - Only available to an inventor/applicant as a “personal” grace period when the inventor/applicant makes the first publication of the invention before filing a patent application
  - A subsequent third party publication of an identical disclosure before inventor/applicant’s patent filing within the 1-year window does not bar inventor/applicant’s patent filing
- Inventor/applicant’s sale or offer for sale of a product or service that conceals the invention (i.e., no disclosure)
  - USPTO: the inventor/applicant can file a patent application within 1 year of the sale or offer for sale
  - Courts?

U.S. Foreign Filing License

- U.S. and China are the only two countries that have strict foreign filing license requirement for invention
  - U.S. requires foreign filing license before making a foreign filing on an invention made in U.S. by any person
    - Any invention made in U.S. (including non-defense technologies)
  - PCT filing at USPTO is not a “foreign” filing
  - Violation renders U.S. patent unenforceable
  - Separate from U.S. export control
- This requirement creates issues for timely patent filing
  - Joint R&D with activities in both U.S. and China
- 2 ways to get foreign filing license
  - (1) Filing a patent application in the country
  - (2) Filing a request with a technical description without filing a patent application

Inventorship in U.S.

- An inventor is the default owner of a patent in absence of an agreement or contract to the contrary
- U.S. patent filing requires an inventor oath or declaration for being an “original inventor”
  - Executed inventor oath or declaration determines the inventorship in a U.S. patent
  - Inventorship is determined by claims
    - Record keeping on who did what and when
    - Conception v. carrying out instructions
- Wrong inventorship can be basis for invalidating a patent

Prosecution History Estoppel

- In most countries, a patent is what's in the patent
  - Not so in U.S. (and China too)
- U.S. patent has "more" beyond the literal words in patented claims
  - "Intrinsic" part of patent
    - Patent itself: description, drawings, and claims
    - File history: all communications between PTO and Applicant in original examination and subsequent post-grant proceedings (e.g., reexam, reissue and *inter partes* review)
      - Prosecution history estoppel
      - Anything you say on PTO record may impact your patent
- Practice tip: less can be more when conducting patent examination in USPTO

1-Year Bar in Derivation Proceedings

- An invention thief can be defeated before USPTO or Federal Court
- If First Filer steals an invention from Second Filer who is the real inventor, Second Filer can initiate a derivation proceeding before the USPTO or Federal Court
  - Second Filer must provide sufficient evidence to show First Filer steals the claimed invention from Second Filer
- Second Filer must act within 1 year
  - Before USPTO, the 1 year begins on the date of the first publication of a claim to an invention that is the same or substantially the same as the earlier application's claim to the allegedly derived invention
  - Before a Federal Court, the 1 year begins from the issuance of the first patent containing at least one claim for an invention allegedly derived from the inventor in the complaining party's patent

Third Party Submission during Examination

- A third party can submit prior art and comments on patentability during patent examination of a published patent application before USPTO
- No subsequent participation by the third party
- Issues with third party submission

Keeping a U.S. Application Secret

- In 1999, U.S. partially adopted the 18-Month publication rule
- Benefits of publication:
  - Public notice
  - Provisional rights of published U.S. applications
  - Prior art publication against later patent filings by others
- Benefits of secrecy of a “submarine” patent application
  - Keep your competitors in dark
  - Can expressly abandon a secret application to maintain a trade secret
  - Avoid third party monitoring
  - Avoid third party submission of prior art to complicate prosecution
- U.S. has a unique way of keeping an application secret
  - Non-publication request must be made at time of filing
    - No foreign counter part
    - Non-publication request can be rescinded within 45 days from the foreign or PCT filing
  - Absence of such a request, publication in 18 months from filing

Affirmative Duty of Disclosure

- Affirmative duty of disclosure before USPTO and inequitable conduct
  - A broad scope of duty
  - Materiality and intent requirements
- Effect:
  - Violation related to a single claim can render your entire patent unenforceable
- Trend: increasingly difficult to prove the violation
  - Court decision in *Therasense*
- AIA allows potential "cure" for prior inequitable conduct
  - Submit your bad reference via Supplemental Examination

Patent Marking and Damage Calculation

- Failure to mark patented product may limit recoverable patent damage
  - Marking requirements different for patented processes and products
    - Designing your patent filings to maximize your damage period in litigation
  - Virtual marking is permissible

Patent Owner's Post-Grant Patent Correction

- In most countries, a patent is fixed in stone after issuance
  - Not so in U.S.
- Patent owner's corrective procedures before USPTO:
  - Certificate of Correction (for minor or obvious errors)
  - Disclaimer of 1 or more claims
  - Reissue
  - *Ex Parte* Reexamination
  - Supplemental Examination

Third Party's Post-Grant Procedures

- *Ex Parte* Reexamination
  - Third party initiates a request
  - *Ex parte* prosecution upon grant of the request
- Post Grant Review (PGR)
  - Patents with priority on or after March 16, 2013
- *Inter Partes* Review (IPR)
  - A "replacement" of *inter partes* reexamination
- Transitional covered business method (CBM) review
  - Expires on September 16, 2020
  - Follows PGR procedures
  - Different from PGR and IPR

Dispute Venues:

- Federal Courts
- International Trade Commission

Patent Litigation Trends

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Patent Litigation Trends (1)

- Increase in the number of cases being filed
  - 5584 in 2012; 3660 in 2011
  - E.D. Tex. and D. Del. most popular (by far)
  - Cases consolidated for discovery, but what about for trial?
- 70-80% of cases being brought by NPEs?
  - Increased in alternative funding for NPE suits
  - “Proxy trolls”
- Even lower quality patents being asserted
  - Increase in 5 figure settlement demands at the beginning of cases

Patent Litigation Trends (2)

- Unprecedented use of PTO as part of litigation strategy through *inter partes* review (only EDTX and Delaware as more cases contesting invalidity)
- Renewed interest in patent reform
  - Primarily because of NPEs
- Costs for Discovery of Electronically Stored Information (ESI) trending down in most (but not all) cases
  - Default rules & courts more in tune with one party attempting to burden the other party just for the sake of burden
- Damages trending downward and more defense friendly
  - E.g., *Laser Dynamics*
  - But $340M award vs. SAP
- FRAND guidance

Another Interesting Trend

Some litigators on the defense side quit defending…

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Patent litigation before U.S. federal courts and International Trade Commission (ITC)

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Introduction to Federal Court Litigation

- Pre-filing investigation
- Filing, answer, and procedural steps (scheduling, protective order)
- Discovery
  - Accused infringer must produce documents, source code, or other information that shows how the allegedly infringing product works
  - Patent owner must produce documents, source code, or other information that can be used to challenge the invalidity or unenforceability of a patent
  - Third party discovery
- Infringement/invalidity contentions
  - Patent owner specifies which patent claims it believes are infringed
  - Alleged infringer responds by explaining why its product is not covered by the patents claims
  - Alleged infringer also discloses basis for invalidity or unenforceability, patent owner responds.
- Claim Construction
  - Infringement/noninfringement positions also involve identification of identification of the patent claims that require interpretation by the court.
  - Claim construction order
  - Parties exchange final invalidity and infringement contentions
- Expert discovery
  - Expert reports
  - Expert depositions
- Dispositive motions
- Trial
- Damages/Injunction
- Appeal

Introduction to ITC Litigation

- ITC which handles investigations into allegations of certain unfair practices in import trade.
  - Independent quasi-judicial federal agency headed by 6 Commissioners who are nominated by the President and confirmed by the U.S. Senate
  - One aspect is importation of articles which infringe U.S. Patents under 19 U.S.C. § 1337
- Patent owners can file a complaint with ITC if imported goods infringe their patent or are made by a process covered by the patent's claims.
  - But there is an additional requirement of domestic industry in licensing, manufacturing, R&D, or activities of licensees
  - Other main differences between district court litigation
    - Speed of the investigation
    - Claim construction hearing optional
    - Remedy
- If ITC determines after an investigation that an imported good infringes a patent, the agency can issue an exclusion order barring the products at issue from entry into the United States
  - President can disapprove of exclusion order for policy reasons.
  - No damages
- ITC determinations can be appealed

How are non-lawyers involved?

- Assisting in-house counsel or outside counsel to defend or prosecute a case
  - Identification of prior art
  - Investigation of accused functionality
    - Explaining how a product works
  - Depositions
  - Witness at trial
  - Design arounds
- Before the litigation – your patents may be asserted one day (either in a new case or counterclaim)
  - Obtain the best IP possible
    - Invention harvesting
      - If your design is the only way a problem can be solved, let your in-house counsel know so that patentablility can be assessed
    - Actively review your patent applications, particularly the claims
    - Provide information on alternative embodiments
    - Maintain good records of your work (notebooks)
    - Provide accurate information on the correct inventors
      - Maintain good records of who was involved on a project

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Dealing with Non-Practicing Entity (NPE) in patent litigation

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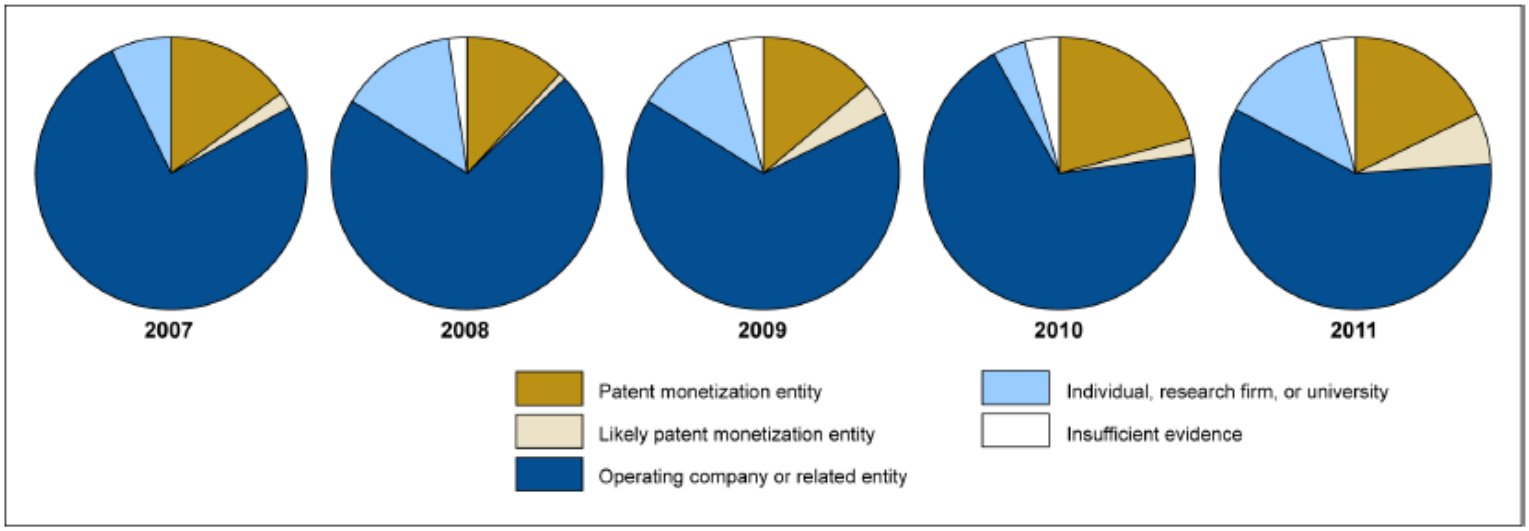
NPE Patent Litigation

- Many types of Non-Practicing Entities (NPEs)
- Today we are talking about certain types of NPEs
  - Patent monetization entities (PMEs) – NPE that buy patents from others for the purpose of asserting them for profit. Also includes companies that produced products at one time, and still own patents on the technologies for those patents.
    - Distinguishable from universities, who put licensing efforts back into R&D and often assist licensees with commercialization efforts
  - 2013 GAO study shows that NPE PME patent litigation is increasing as a share of all patent infringement suits

Figure 4: Estimated Patent Infringement Lawsuits by Type of Plaintiff, 2007 to 2011



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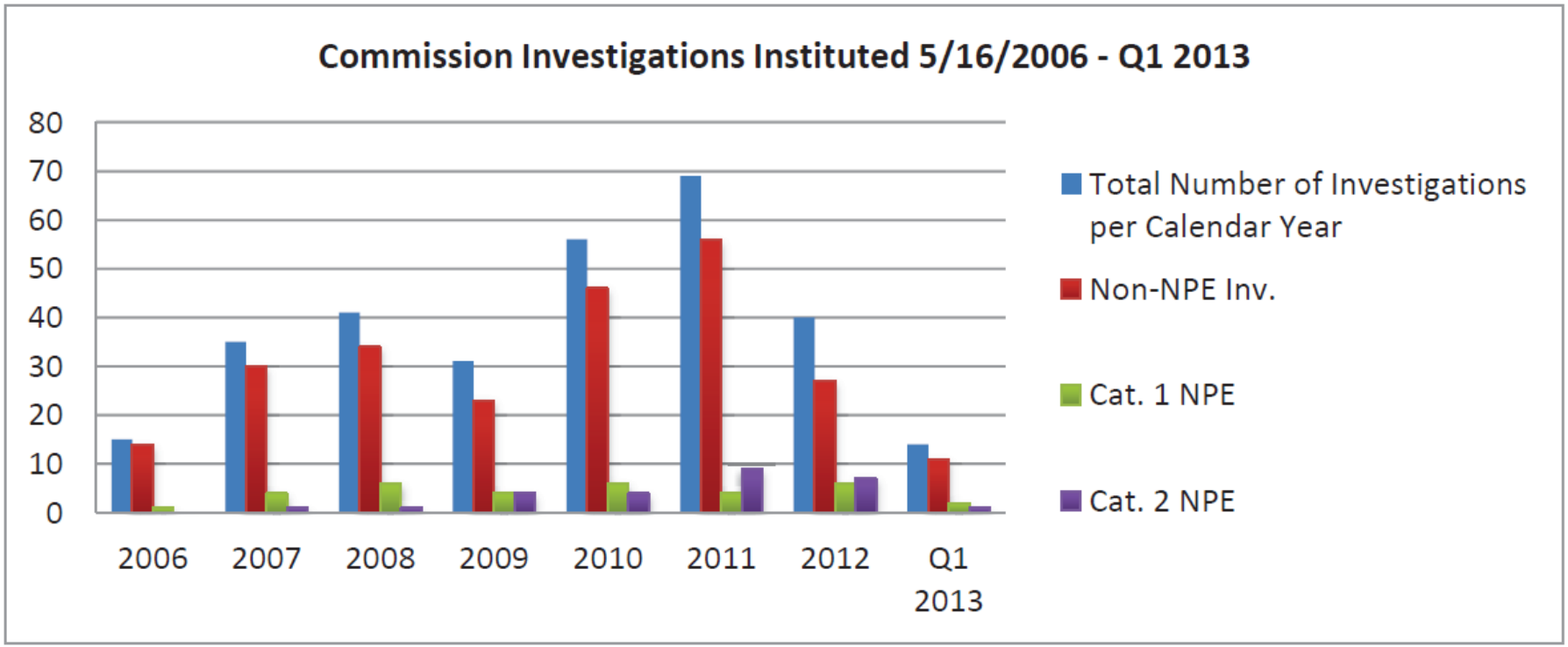
NPEs at the ITC



- Category 2 NPEs. Entities that do not manufacture products that practice the asserted patents and whose business model primarily focuses on purchasing and asserting patents.
- Category 1 NPEs. All other entities that do not manufacture products that practice the asserted patents, including inventors, research institutions (such as universities and laboratories), start-ups, and manufacturers whose products do not practice the asserted patents.

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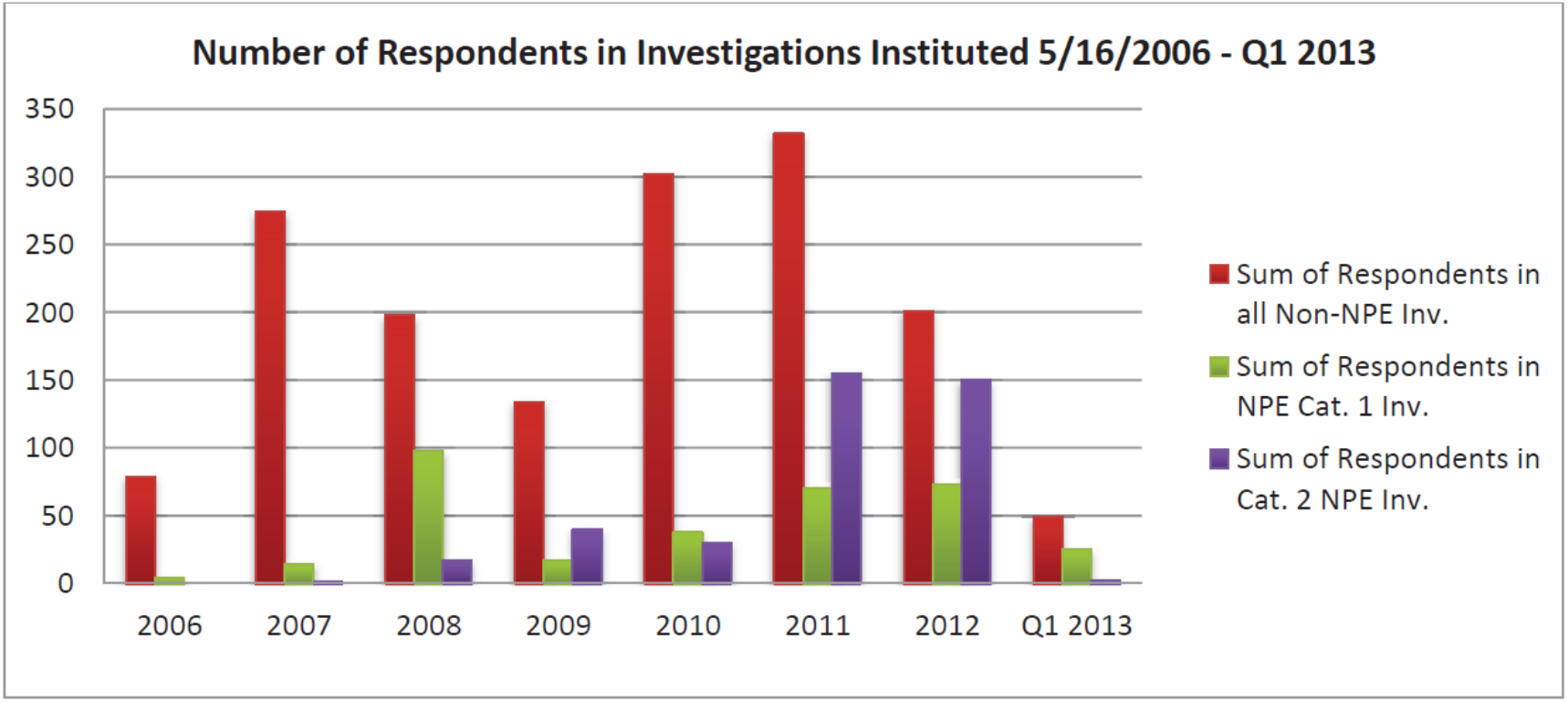
Number of Respondents in Investigations



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NPE Patent Litigation

- Objectives of a PME NPE
  - Extract settlement values that are based on the cost and uncertainty of litigation
    - Reasonable royalties is the main goal in district court litigation, because there are no lost profits
    - ITC litigation: NPE may still meet the domestic industry requirement
  - Obtain settlement values that are based on the perceived value of an exclusion order before the International Trade Commission
    - But often the value of an exclusion order is really the "cost" (engineering time, market acceptance) of a design around.
  - Every dollar spent by the NPE in litigation is a dollar out of the NPE's bottom line.
    - Target multiple defendants at the same time.
    - NPEs will have low discovery costs vs. a typical defendant

Litigation defense against NPE

- Defendants can't have the same strategy every time when faced with NPE PME infringement allegations:
  - Settling every time can invite lawsuits by NPE's interested in small settlements from multiple defendants
  - Fighting every lawsuit through trial may be cost-prohibitive
- What is needed is a business assessment on a case-by-case basis
  - Determine business objectives of a litigation
    - What is the importance of the accused product functionality to profits / consumer acceptance / performance?
  - Cost effective approach to litigation during the time it takes to settle a case
  - Focus on litigation activities that may reduce the settlement value of the case:
    - Design arounds of accused functionality
    - Challenging sufficiency of infringement contentions
  - Offensively consider non-litigation activities that may drive settlement
  - NPE vulnerabilities which may drive settlement:
    - Challenging the validity of NPE-owned patents
      - Limiting claim scope or invalidating claims

How Can Managers and Engineers Facilitate?

- Assessment of potential infringement of claims
  - Number of models / processes impacted
- Providing information on the consumer acceptance of a feature
- Design arounds
  - Cost of a design around
  - Time to implement / test a design around
- Providing counsel with known prior art
  - Identifying prior art that operates like accused products
  - Providing sources of likely information (well-known inventors or authors, companies active in the technical field, names of organizations or standards bodies)

Effective Case Management in NPE Litigation

- Proactively managing the life cycle of the case
  - Be proactive, not reactive
  - Use software to organize information and track progress
  - Assess continually staff efficiency and requirements
  - Manage to the budget
  - Communicate with your outside counsel (goals, expectations, deliverables)
- Tailor strategy/tactics
  - Relevance of technology at issue to customer acceptance of the client's products
  - Scope of patent claims at issue
- Tailored approach based on your goals
- Continual process based on discovery

Mechanics of NPE Patent Litigation Strategy

- Early settlement discussion?
- Joint defense groups / joint representation
- *Inter partes* review + motion to stay
- Targeted early summary judgment / claim construction
- Aggressive in fee requests
  - Chief Justice Rader guidance
- Examine ownership
  - 10-15% of patents owned by NPEs have chain of title problems

Reducing Litigation Cost by Post Grant Proceedings

Traditional Law Firm Model

- Litigate complex prior art issues (only 3% chance of trial)
- Move for summary judgment

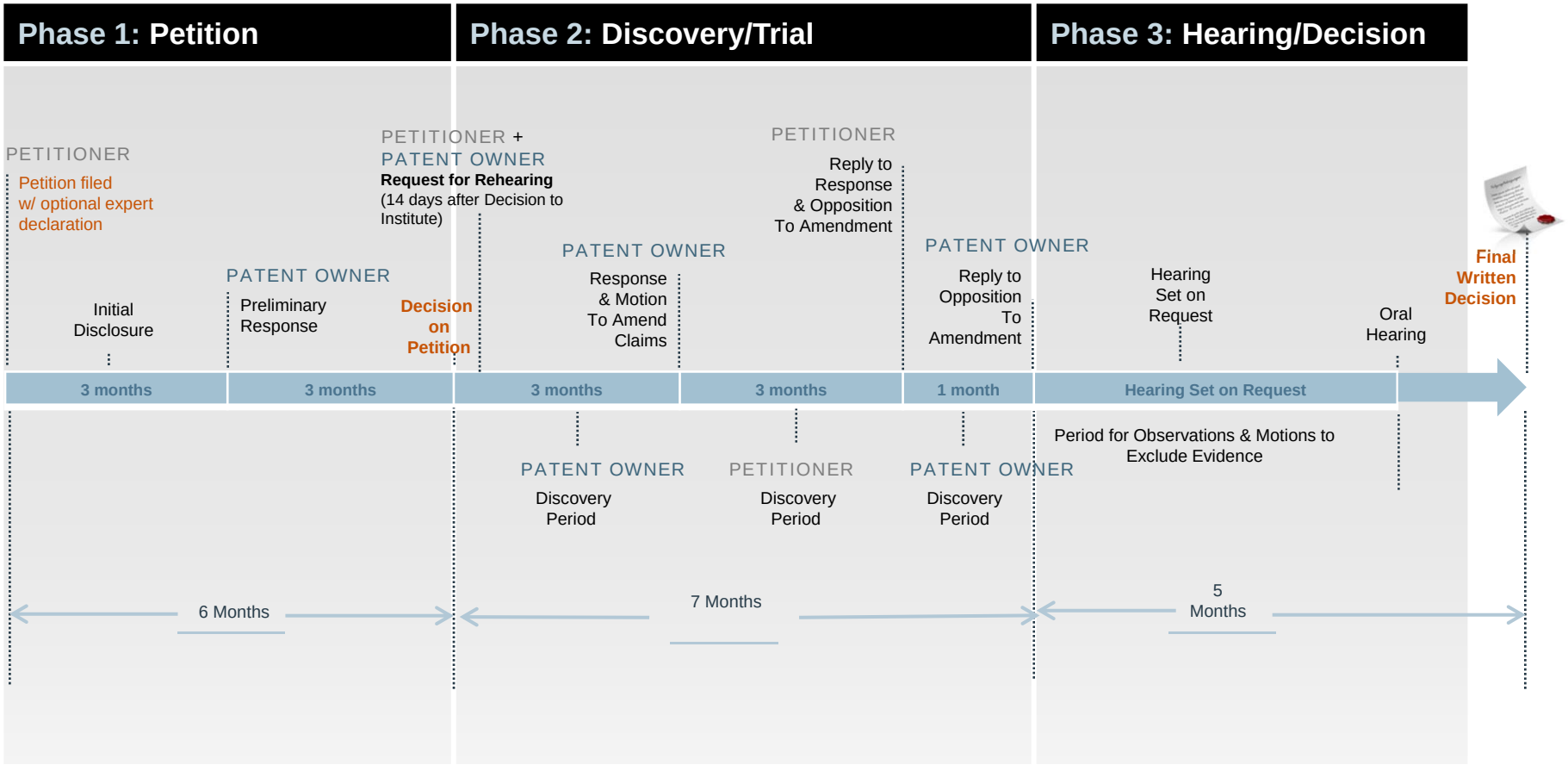
Cost-Effective Method

- Consider post-grant proceedings before USPTO
  - Inter Partes Review (IPR)
    - replaced Inter Partes Reexamination
  - Post Grant Review (PGR)
    - broad attack in first 9 months of patent grant
  - Covered business method patent review (CBM)
  - Ex Parte Reexamination
- Potential stay of litigation
- Attack, eliminate or damage NPE patent assets
  - Public proceeding—reveals prior art to the public and other NPE targets
  - Force NPE to early settlement before launching of post-grant proceeding
- Significant cost savings and potential litigation advantages including stay of litigation

Inter Partes Review (IPR)

- IPR Basics
  - Effective on September 16, 2012
  - All patents in force are subject to IPR
  - Invalidity grounds are limited to published prior art patents and publication
  - Threshold: Reasonable Likelihood to Prevail ("RLP") on at least one claim
  - Standard of proof is preponderance of the evidence
  - Limited discovery available
  - Settlement possible
- Timing
  - Cannot be brought if petitioner served with a complaint for more than one year
  - Cannot be brought if petitioner brought DJ action
  - Filing must be later of (a) 9 months from patent grant or (b) termination of a post-grant review ("PGR").
- Estoppel
  - Attaches when PTAB issues final written decision (even if appeal is pending)
  - Petitioner (or its privy) or real party in interest cannot re-assert art that was raised or reasonably could have been raised in concluded IPR in District Court, ITC, another PTO proceeding
  - No estoppel if settled

PTAB Trial Roadmap: PGR/IPR/CBM



- Marked trial event dates are maximum milestone dates
- PTAB tends to shorten the process

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Reasons to Consider IPR

- Savings of time and money
- No present threat of infringement claim
- Better standards – “preponderance of the evidence” and “broadest reasonable construction”
- An alternative to arbitration in a license agreement
- An alternative when facing unfriendly venue in infringement lawsuit
- Likelihood that jury would never understand the invalidity position
- Alternative to an *ex parte* reexamination
- Two bites at the apple (split invalidity claims or invalidity/infringement)
- Traditional court-style discovery would hurt your invalidity position
- The patent owner has far better witnesses in support of its position
- Patent Owner estoppel that precludes patent from taking action inconsistent with the adverse judgment in PTAB final written decision

IPR vs. District Court Litigation

IPR Trial Before USPTO:

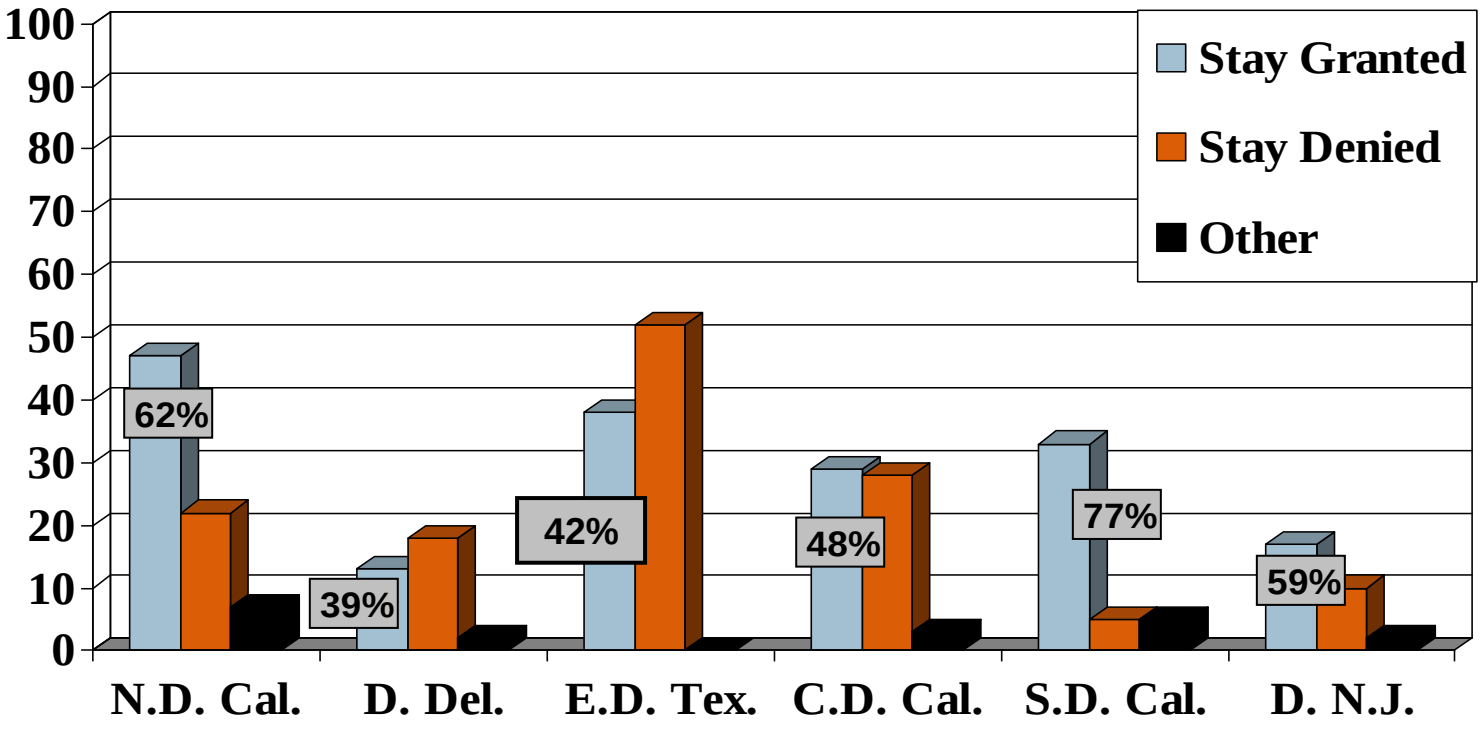
- No presumption of validity
- "Preponderance of evidence" (more likely than not)
- Patent claims are given the broadest reasonable interpretation
- Claims are reviewed by administrative patent judges knowledgeable in the field, not jury or law clerk
- Invalidity based on patents and printed publications only
- Infringement, enforceability, and damages not addressed

District Court Litigation:

- Presumption of validity
- "Clear and convincing" standard
- To invalidate a patent, jury must believe that Federal Government made a mistake
- Any invalidity ground can be raised
- Infringement, enforceability, and damages addressed

Litigation Stay – Pre-AIA Inter Partes Reexam

Reported Cases (2008 – June 2011)



Note: Probability of stay increases if reexam filed early in the case (e.g., before significant discovery)

From: http://www.patentspostgrant.com/lang/en/2011/06/judge-by-judge-statistics-on-stays-pending-patent-reexamination

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Court Stay Decisions Pending IPR

- Data as of Oct. 18, 2013
- **78** orders on motions to stay pending ***IPR***
  - **59 motions to stay granted (75.6%)**
    - 26 stays granted after petition for IPR was filed (44% of stayed cases)
    - 2 stays granted after IPR was instituted (3%)
    - 31 unopposed or stipulated stays (52.5%)
  - **19 motions to stay denied**
    - 16 stays denied after filing petition for IPR
    - 2 stays denied after IPR was instituted
    - 1 stay denied after IPR petitions were filed for 2 patents and review was instituted on another patent

Use of IPR against NPEs

- Ziptronix v. TSMC (N.D. Cal. Dec. 6, 2010)
  - U.S. 6,864,585 - Three dimensional device integration method and integrated device
  - U.S. 7,037,755 - Three dimensional device integration method and integrated device
  - U.S. 7,335,572 - Method for low temperature bonding and bonded structure
  - U.S. 7,387,944 - Method for low temperature bonding and bonded structure
  - U.S. 7,553,744 - Method for low temperature bonding and bonded structure
  - U.S. 7,807,549 - Method for low temperature bonding and bonded structure
- TSMC filed IPRs against Ziptronix patents
  - TSMC filed IPR2013-00381 on June 21, 2013 against U.S. 7,485,968 - 3D IC method and device
  - TSMC filed IPR2013-00239 on April 5, 2013 against U.S. 7,462,552 - Method of detachable direct bonding at low temperatures (Instituted) 0
  - TSMC filed IPR2013-00154 on April 5, 2013 against U.S. 7,335,996 (Instituted) - Method of room temperature covalent bonding

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Building a strong U.S. patent portfolio

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Partner

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Functions of Patents

- Barriers to competitors (Shield)
- Exclude competitors (Sword)
- Protection against former employees
- Company business asset
  - Just like any other property owned by the company
  - Part of company valuation
- Revenue generator
  - e.g., selling or licensing
- Transferable
- Staking out the company technology assets and M&A opportunities

Sources of IP

- Created by your team
  - Invention disclosures, patents, patent applications
    - Patent filing leads to public disclosure of invention
  - Trade secrets/know-how
    - Risks: others may patent the same technology they independently invented
  - Designs
- Jointly developed and owned with others
  - IP created in collaborative R&D projects
- Licensed from others
  - e.g., technologies from universities and other IP owners
- Acquired from others

What to Patent?

- Decision on what to patent
  - Business considerations
    - Company current products/services
    - Company upcoming products/services
  - Legal considerations
    - Detectability consideration
    - The classic dilemma: patent filing v. trade secret
      - reverse engineering issues, former employer issues
- Patenting in a technical area having patents by others
  - “Castle in the jungle” situation where your invention is land locked
- Beyond what your current business needs
  - Where your company is heading
  - Where your sector is heading
  - Where your competitors are heading
  - Who may acquire you?

Patent Filing Options in U.S.

- Utility patents in U.S. based on
  - Provisional Patent Applications
    - Increasingly important filing tool under “First Inventor To File”
    - Reserving US and foreign patent filing rights
    - Establishing early filing dates
    - Capturing on-going R&D results
    - Getting the 21 year protection in the “20-year” patent term world
  - Non-provisional Patent Applications
    - Getting US patents
    - Basis for getting foreign patents with early U.S. filing dates
    - Divisional applications (no new technical disclosure)
    - Continuation applications (no new technical disclosure)
    - Continuation-in-part applications (with new technical disclosure that is not in the parent patent application)
- Design patents

U.S. Patent Process

- Step 1: Filing a patent application at U.S. Patent and Trademark Office ("USPTO")
  - "Patent Pending" v. Patented
- Step 2: 18-month publication of pending patent applications (pre-grant publication)
  - Provisional rights from publication date (after grant)
- Step 3: Substantive examination: 2-3 years or longer (fast track examination possible)
- Step 4: Patent grant
  - Patent term: 20 years from US filing date
  - Your patent can have children if you take action before grant
    - Continuation application, divisional application, continuation-in-part application
- Step 5 and more: Post-grant procedures
  - Patent maintenance fees due at 3.5 years, 7.5 years and 11.5 years
  - Patent marking
  - Patent fixes and challenges-certificate of correction, disclaimers, reissue, reexamination, post-grant review, inter partes review

Contents of U.S. Patent Application

- Statutory requirements for a patent specification
  - Written description
  - Enablement
  - *Best mode requirement*
    - A subjective standard from the point of view of the applicant at the time of filing
    - A disclosure requirement
      - No requirement to identify the best mode
  - Failure to meet the best mode requirement under AIA
    - No longer a defense in patent infringement action
- Applicable to both provisional and utility patent applications

Drafting Patent Applications: Description

- Technical description part is the source of patent claims
  - It is not a purely “technical description”
  - A detailed description is a “broad” specification
    - Provide basis for a broad range of equivalents
    - A claim must be supported or have basis in the detailed description
    - When claims are properly drafted, technical details in the technical description cannot be read into claims
  - Be careful in using certain words:
    - Examples: “best”, “optimal”, “critical”, “superior”
  - Be careful in discussing or criticizing prior art
  - Do emphasize advantages or benefits
  - Be careful with statements in “Background”

Drafting Patent Applications: Claims

- Create diversity in patent claims to provide breath in claim coverage
  - Draft different claims to cover different points of novelty, respectively
  - Draft different claims to capture different aspects of the technology in use
    - Device claims, process/method claims, composition claims, etc.
- Create diversity in patent claims to provide claim differentiation with different layers/depths of protection
  - A dependent claim should include meaningful additional feature beyond its base claim
    - e.g., a dependent claim can cover a species of a feature in the base claim
- Claims with "means plus function" claim limitations
  - A claim element can be a means or step for performing a specified function without the recital of structure, material, or acts in support thereof
  - *Narrow interpretation* in U.S. and China
    - Very different from the rest of the world
  - Tip: consider adding a similar claim without the "means plus function" limitation

Maintaining or Further Diversifying Patent Claims via Child Applications

- A U.S. patent application can have children—voluntary divisionals and continuations
  - No strict limit on the number of divisional applications
  - Unique continuation application procedure
  - "Continuation" requirements: copendency, continuity in disclosure, at least one common inventor, etc.
  - Earlier priority date with the same 20-year term from the parent patent application
  - Double patenting issues and terminal disclaimer
- U.S. continuation-in-part (CIP) applications
  - A subsequent child application can have common disclosure and, addition, new technical disclosure that is not in the priority parent application
  - Priority date of a claim depends on when the claimed subject matter is filed at the USPTO
  - A term of a CIP application is 20 years from filing of the priority parent application
    - A shortened term for a claim covering new technical disclosure

Next: Panel discussion and Q&A

- Prof. Kwang-Lung Lin (林光隆)
- Prof. Kuo-Ning Chiang (江國寧)
- Dr. Benjamin Wang (王本耀)
- Mr. John Schnurer
- Dr. Bing Ai (艾兵)
- Mr. Kevin Patariu