An Agile Resource of Over 200 Engineers

IEEE Meets The USPTO
September 13, 2017
Some IEEE Background

- World’s largest technical professional organization for the advancement of technology
- 423,000 members in over 160 countries
- We are in the Santa Clara Valley Section
  - One of 334 sections worldwide
  - About 12,000 members
  - About 36 chapters:
    - Societies: Computer, Nanotechnology, Electron Devices, etc.
    - Universities: Stanford, Santa Clara Univ., SJSU, UCSC
    - “Affinity Groups”: Consultants’ Network, Young Professionals, Women in Engineering, Life Members
- Bay area IEEE events online at egrid.biz
IEEE-CNSV: Consultants’ Network of Silicon Valley

- We are your event sponsor tonight!
- Broad skills amongst our 228 members:
  - Hardware: circuit and chip design
  - Software: web design, embedded products
  - Mechanical engineering
  - New Autonomous Vehicles (AV) SIG
- Monthly meetings at SEMI in Milpitas
  - 2nd Tuesday of the month; 150-175 attendees
- Website at CaliforniaConsultants.org
CNSV Chapter Website
Our most important resource

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CNSV Director
IEEE Senior Member

Brian is an independent consultant with extensive experience with storage devices and interfaces, including Flash Memory, Disk Drives, RAID/Disk Arrays, Optical Storage (CD-ROM, DVD, WORM, Magneto-Optical, Content Scramble System-CSS), Tape, Storage Area Networks (SAN), and USB, SCSI, iSCSI, SAS, Fibre Channel and SATA/IDE/ATA/ATAPI. He has performed device tear-downs in order to study the workings of a number of consumer electronics devices, and has studied the operation of Kindle and Nook e-book readers.

Brian has participated in over 80 conferences and industry events as speaker, session chair, conference chair and conference advisory board member. He is Technical Chair of Flash Memory Summit, the world’s largest storage conference.

He has written device drivers, software and firmware under Windows/DOS, UNIX (incl. Sun and SGI) and embedded real-time operating systems (RTOSs), and had worked with Android-based products. He has been a software developer, project lead, industry analyst, seminar leader, technical marketer and writer. He is experienced with programming languages including C, C++, Java and assembly.
CNSV Meetings Serve The Whole Engineering Community

Sept-Dec 2016 Demographics

- 128 CNSV Members – most are also IEEE
- 273 IEEE Members who are not CNSV
- 252 Potential Members (Guests)
Importance of IEEE to the USPTO, and Vice Versa

- 2017 Report by 1790 Analytics LLC
  - Examined patents filed from 1997-2016 by each year’s 40 top-patenting organizations
  - IEEE journals and conference proceedings received over 430,000 citations
  - This is over 3x the number of any other published

- Here in Silicon Valley, IEEE can establish a relationship with this local office
  - I hope we can strategize together about how best to do this
Importance of US Rep. Zoe Lofgren re: Silicon Valley’s USPTO Office

- 2012: Congresswoman Lofgren received an IEEE-USA Distinguished Public Award at Marvell’s HQ

- Just before this event, the San Jose office was announced

- Zoe was hailed at this event for having secured this office
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Thank you for your attention
Types of IP, Strategies and USPTO Services and Resources

IEEE-CNSV Open House at Silicon Valley USPTO
September 13, 2017

John Cabeca
Director of the United States Patent and Trademark Office
West Coast Regional Office
What is the USPTO?

The **USPTO** is the Federal agency that grants U.S. patents and registers trademarks. The Agency also advises the President and Federal agencies on intellectual property (IP) policy, protection, and enforcement, and promotes stronger and more effective IP protection around the world.

**Mission:**

Fostering innovation, competitiveness and economic growth, domestically and abroad to deliver high quality and timely examination of patent and trademark applications, guiding domestic and international intellectual property policy, and delivering intellectual property information and education worldwide, with a highly skilled, diverse workforce.
Types of Intellectual Property
<table>
<thead>
<tr>
<th>Overview of Intellectual Property</th>
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</thead>
<tbody>
<tr>
<td><strong>What’s Protected?</strong></td>
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<tr>
<td><strong>Utility Patent</strong></td>
</tr>
<tr>
<td><strong>Design Patent</strong></td>
</tr>
<tr>
<td><strong>Copyright</strong></td>
</tr>
<tr>
<td><strong>Trade Secret</strong></td>
</tr>
<tr>
<td><strong>Trademark</strong></td>
</tr>
</tbody>
</table>
Can you find the IP in a mobile phone?

**Trademarks:**
- Made by "Nokia"
- Product "N8"
- Software by Microsoft “Windows”

**Patents:**
- Data-processing methods
- Semiconductor circuits
- Chemical compounds
- Battery/Power Control
- Antenna
- Optics

**Trade secrets:**
- ???

**Copyrights:**
- Software code
- Instruction manual
- Ringtone
- ...

**Designs (some of them registered):**
- Form of overall phone
- Arrangement of buttons in oval shape
- Three-dimensional wave form of buttons
- Sliding screen
What is a Patent?

• A Property Right
  – Right to *exclude others* from making, using, selling, offering for sale or importing the claimed invention
  – Limited term
  – Territorial: protection only in territory that granted patent; *NO world-wide patent*
The Peoples’ Benefit

- To ensure that investment of time and money is rewarded to continue future inventive stimulation
  - Patent gives inventor limited rights
  - 20 Year Term

- Public is provided disclosure of how to use and make invention
  - Patenting requires publication
  - Accelerates development
  - Strengthens national economy
IP Strategy IS a Business Strategy

IP:
- Is attractive to investors and buyers
- Deters infringement lawsuits
- Can increase leveraging power
  - Mergers and acquisitions
- Is a property right that can add value to a company’s assets
- Is Global
The Path to a Patent

NEW IDEA?

PROVISIONAL APPLICATION (OPTIONAL)

TWENTY YEARS

NON-PROVISIONAL APPLICATION (UTILITY)

One Year!

PATENT!
What are the risks of disclosure?

• What can I say before filing?

• When do I know I’ve said too much?

• Disclosure vs. Sale
  – Crowdfunding Campaigns

• Can’t I just keep it secret?

Examples of Public Disclosure:
• displaying your invention at a trade show,
• posting your invention on the Internet
• offering to sell your invention
• a description of your invention in a newspaper or journal article, or
• publicly demonstrating your invention.
What is Patentable?

NEW, NONOBVIOUS, USEFUL, & CLEARLY DESCRIBED
Patent “Claims”

◆ The “heart” of the patent grant
◆ Specific definition of the invention
◆ Metes and bounds of the patent coverage
What should a patent application claim?

Invention

Too Broad/General

Too Specific

Not valuable

Not patentable
Patent Claim Example

A Housing

...with an opening

...to receive a memory storage device

... wherein the storage device is an optical disc.

Phone

Laptop

Battery

Suitcase

Phone

Laptop

Suitcase

Phone

Laptop

Suitcase

Laptop

Suitcase?
When should you file a patent application?

United States is a First Inventor to File System!

• Looking for international protection?
  – You’ll want to file before public disclosure

• Only want US protection?
  – You can file within one year after public disclosure
The USPTO’s West Coast Regional Office in Silicon Valley

Establishing A Regional Presence
Regional Focus for Workshops

• For All Levels – From K-12 to IP professionals
• From basic facts to updates on law and procedure
• Stakeholder roundtables & roadshows
• Inventor conferences w/ focus on startups
• Tech Specific Partnership Meetings
  – Software, BioTech, CyberTech, Additive Manufacturing
• Facilitated USPTO Webinars
• Lunch & Learn Programs
• International programs
• 1-on-1 assistance, both in-person and virtually
• Just-in-time programming (FITF, §101, Paralegal Workshops, etc.)
• Co-host programs with strategic community partners
Working with Startups

Programs for the Innovation Community designed to:

• **Increase Awareness of Intellectual Property**
  – IP Strategy **IS** a Business Strategy

• **Identify Risks of Early Public Disclosure**
  – U.S. is now a First Inventor to File System
    • Understanding the Grace Period
  – Loss of rights internationally
    • % foreign filing
  – Crowdfunding Campaigns
    • Disclosure vs. On Sale Bar issues?

• **Where to get help?**
Patent Specialist 1-on-1 Meetings

Reserve 20-minute meeting with a patent specialist

• In-person assistance intended for pro se applicants
• Discuss different forms of IP, patent application process, prior art searches, and available resources
• No legal or business advice can be provided
Public Interview Rooms

Connect and collaborate with patent examiners.

• Rooms are equipped with multiple videoconferencing systems and HD document camera

• Replicates in-person experience between applicant and patent examiner

• On-site Interview Specialists available to assist with IT equipment and to help ensure interview goes smoothly
Universal Public Work Stations (UPWS)

Public access to patent and trademark databases, including search tools only available at USPTO headquarters, regional offices, and Patent and Trademark Resource Centers (PTRCs).

PubWEST & PubEAST:

- **Public versions of the Web-based Examiner Search Tool and Examiner Assisted Search Tool**
- Developed for USPTO patent examiners
- Public access to many search features patent examiners use
Why Search @ UPWS

Benefits of PubWEST & PubEAST

- **Speed** – Faster flip rate going through documents
- Ability to use **proximity searching**: adjacency, near, with (same sentence), same (same paragraph) for more relevant and smaller document set plus **Keyword in Context (KWIC)** display option
- **Simultaneous searching** across similar databases
- Ability to search **foreign patent databases** (EPO Abstracts, JPO Abstracts, Foreign Images, and Derwent World Patents Index)
- **Grid display** options
- OCR text **searching back to 1920**
- **Relevancy ranking** indicates how often a particular term shows up in a set of documents from a keyword search and ranks the search results accordingly.
Customizable view with Faster Flip Rate
PubEAST Navigation Keypad for Quick Viewing
Fig. 1 item 401 shows similarity of construction.
<table>
<thead>
<tr>
<th>Remove</th>
<th>Search Type</th>
<th>Document ID</th>
<th>Image Document ID</th>
<th>Source</th>
<th>Page#</th>
<th>Comment</th>
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<tr>
<td></td>
<td>Prior Art US 8473130 B2</td>
<td>US 8473130</td>
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<td>US Full</td>
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<td>US Full</td>
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<td>5</td>
<td>Examine further fig 4 item 10.</td>
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<tr>
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<td>Column 4 @ line 45.</td>
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<td>US 8205902</td>
<td>US Full</td>
<td>2</td>
<td>Fig. 1 item 30 pivot point.</td>
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</table>
Welcome to the Intellectual Property Awareness Assessment Tool. The IP Assessment includes the below five general categories, that are included in all assessments.

- IP Strategies & Best Practices
- International IP Rights
- IP Asset Tracking
- Licensing Technology to Others
- Using Technology of Others

There are five additional categories that all can take or, which may be customized through a Pre-assessment. These five categories include:

- Copyrights
- Design Patents
- Trademarks
- Trade Secrets
- Utility Patents

http://www.uspto.gov/inventors/assessment

Not all businesses have all categories of IP Assets so they have an opportunity to opt out of certain categories by using the customizer or Pre-assessment or may opt to take the full assessment of ten categories containing 62 questions.

The full assessment requires about 20-30 minutes to complete. The customizer or Pre-assessment can reduce the required time by 10-15 minutes.
Patent Pro Bono Program

- 22 regional programs across the country provide matching services.

In California

California Lawyers for the Arts
www.calawyersforthearts.org/CIAP
Law School Clinic Certification Program

Allows students in a participating law school’s clinic program to practice before the USPTO under the strict guidance of a Law School Faculty Clinic Supervisor.

In California

- University of San Francisco School of Law
- Lincoln Law School of San Jose
- University of California, Los Angeles School of Law
- Thomas Jefferson School of Law
- California Western School of Law
Micro Entity Status

- 75% off most patent fees
- Low cost submission to establish filing date
  - Provisional Application Filing Fees
    - $130 small entity
    - $65 micro entity
- Micro entity certifies that he/she:
  - Qualifies as a small entity (less than 500 employees);
  - Has not been named as an inventor on more than 4 previously filed patent applications;
  - Did not, in calendar year preceding the calendar year in which the applicable fee is paid, have a gross income exceeding 3 times median household income; and
  - Has not assigned, granted, or conveyed (and is not under obligation to do so) a license or other ownership interest in the application concerned to an entity that, in calendar year preceding the calendar year in which applicable fee is paid, had a gross income exceeding 3 times the median household income.
• Process designed for issues that arise during patent application prosecution; used to get an application “back on track”
• Use on-line ombudsman form at http://www.uspto.gov/patents/ombudsman.jsp

“This program brings a voice to the inventor that he normally would not have ... THANK-YOU!!!!!!!”
Need Patent Protection Fast?

Need to FAST track your patent? Use Track One!
Move your ideas quickly with USPTO's Track One

www.uspto.gov/patent/initiatives/usptos-prioritized-patent-examination-program
Patent and Trademark Resource Centers (PTRC)

Nationwide network of public, state and academic libraries that are designated by the USPTO to disseminate patent and trademark information and to support intellectual property needs of the public.

http://www.uspto.gov/ptrc
Resources

Helpline: 1-800-PTO-9199

- Patent Process: www.uspto.gov/patents/process
- IP Awareness Assessment Tool: www.uspto.gov/inventors/assessment
- Inventor and Entrepreneur Resources: www.uspto.gov/inventors
- Pro Se Assistance: www.uspto.gov/patents-getting-started/using-legal-services/pro-se-assistance-program
- Micro Entity Limit: www.uspto.gov/patents/law/micro_entity.jsp
- Patent Pro Bono help and video: www.uspto.gov/inventors/proseprobono
- First Inventor to File: www.uspto.gov/aia_implementation/patents.jsp#heading-10
Thank You