

TechnoLegal 2001
Worldwide Patent Protection of High Technology

Naren Thappeta, Esq.
www.iphorizons.com
nt@iphorizons.com

DISCLAIMER! NOT LEGAL ADVISE!!

Objectives (from audience perspective)

0. Why do I need Patents?

1. What kind of things can be patented?

2. In which countries do I need patents?

3. When should I get started?

Agenda

I. Overview

II. My Background

III. Comparison of Number of US Patents by Countries of Origin

IV. The Rights Granted

V. Use of Patents in Different Stages of a Business

VI. How Soon to Apply

VII. Securing Patent Protection World-wide

VIII. What Can Be Patented: Practical Approach

IX. General Considerations

X. Questions and Answers

II. My Background

Registrations

- **State bars of California (1998) and Virginia (1996)**
- **United States Patent and Trademark Office (1996)**
- **Indian Patent Bar (2000)**

Work Experience

- **1988 - 92: Corporate Information Services, Intel, California**
- **1992 - 94: Legal Department, Intel, California**
- **1994 - 95: Legal Department, Cirrus Logic, California**
- **1995 - 96: Robert Platt Bell & Associates, Washington, D.C.**
- **1996 - 97: Sterne, Kessler, Goldstein & Fox, Washington, D.C.**
- **1997 - Now: Law Firm of Naren Thappeta, Silicon Valley, California**
= Represented Covad (COVD), Shasta (Nortel, NT), Paradise
Electronics (Genesis Microchip), ZeitNet (Cabletron)
- **Now - Future: Bangalore, India**

III. Comparison of Number of US patents by Countries of Origin

- **Patents make sense where the markets are**
 - not necessarily where designed

Country	1998 Patents	1999 Patents
USA	90,701	94,096
Japan	32,119	32,515
India	94	114
Taiwan	3805	4526

Table I

- **See Table I**
 - **By countries of origin**
 - **Definition: Based on first named inventor**
 - **Source: ftp://ftp.uspto.gov/pub/taf/pat_tr99.htm**
- **Implication to Companies of Indian Industry**

IV. The Rights Granted

- **Right to preclude others (NOT a positive right under US Laws)**

- **Injunction**
- **Damages and/or Compulsory Licenses**
- **Preventing importation**

- **New and unobvious over ‘prior art’**

**‘Prior art’ = what is in the possession of the public
(knowledge base of the public) on filing date**

- **Example (1) - Incremental Improvement**

Prior Art: Just tree trunks and stones over which people sit

Product: A stool (featuring a base and legs to support the base)

Difference/Claim: a leg supporting a base

**Patent right COULD Cover: All stools, chairs with legs
or even circular support**

IV. The Rights Granted (Continued)

- **Example (2) - Leapfrogging the prior art**

Prior Art: Charcoal

Product: Ink Pen (featuring liquid writing material, tip and holder)

Differences: (a) holder holding a writing material;

(b) a tip dispensing liquid writing material

Patent right COULD Cover: Pencils, ink pens, Ball-pens, Quill-pens

- **SCOPE OF PROTECTION**

The CLAIMED difference from the PRIOR ART

Irrespective of where/how it manifests

NOT what was in prior art

BROADER THAN THE DESIGNED PRODUCT/SERVICE

V. Use of Patents in Different Stages of a Business

- **Upon identification of a space/product/service**
 - **While Discussing with potential partners**
 - **NO REQUIREMENT THAT YOU IMPLEMENT!**
- **When an investor invests**
 - **Concern: inventor potentially leaving the company**
- **Barrier for new entrants into the same space**
 - **Discourage new investments**
- **When the enterprise has deep pockets**
 - **patent as a defensive instrument**
- **Deterrent against injunction sought by a competing company**
- **Protect your market share**

V. Use of Patents in Different Stages of a Business (Continued)

- **Acquisition**
 - **Patent portfolio part of the valued assets**
- **Going IPO**
 - **SEC filings in US**
 - **Investor confidence of existence of barriers**
 - **Validation of technical space**
- **Royalties/licensing**
 - **Cisco, MCI**
 - **Big Players Approach: Portfolio building and cross-licensing**
- **Attracting Talent/Attention**
 - **Employer Consideration**
 - **Consumer Products Space**

VI. How Soon to Apply

- **Patents are COUNTRY SPECIFIC**
 - **Look to the law of country**
 - **All countries have general rules**
- **General Rule: File before PUBLIC DISCLOSURE or COMMERCIAL EXPLOITATION**
 - **NDA may not protect in some jurisdictions**
- **Exception: US gives up to one year from public disclosure**
 - **Rooted in first to invent system**
- **Some advantages of early filing**
 - **Legally required as above**
 - **Less prior art**
 - **Faster issuance of patents**

VII. Securing Patent Protection World-wide

- **Patents are COUNTRY SPECIFIC**
 - **Patent in one country may NOT have force in another country**
 - **Have to file and prosecute in EACH COUNTRY**
 - **Harmonization MOSTLY in terms of PROCEDURE, not SUBSTANCE (EXAMINATION, etc.)**
- **General Rule**
 - **File in one country**
 - **File in each country claiming priority from the earlier filing**
 - **OVERALL COSTS HIGH (Translations and Foreign Associates)**
 - **Timelines of entry into ‘National Stage’ depend on procedure**

VII. Securing Patent Protection World-wide (CONTINUED-1)

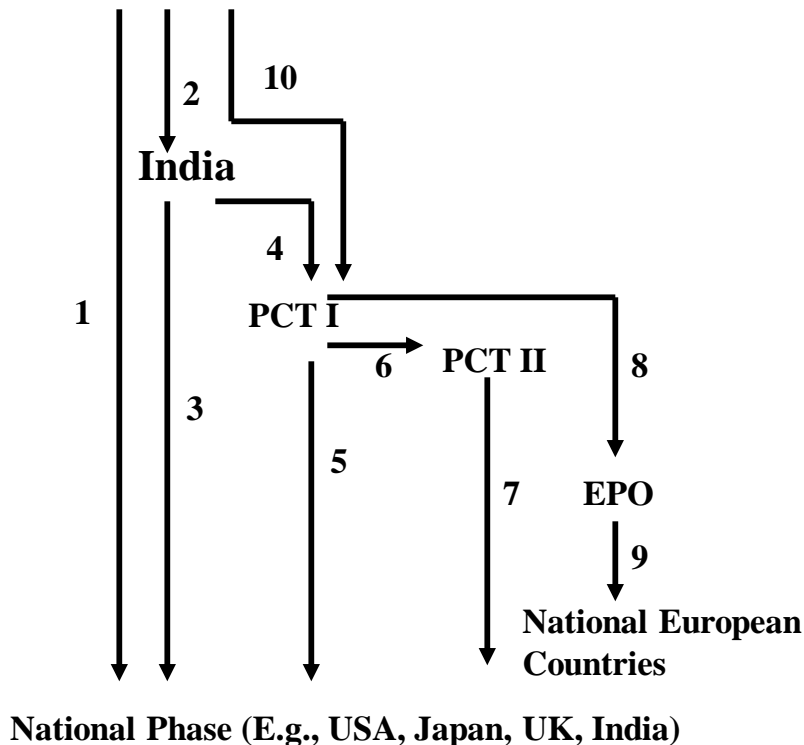
- **APPROACH to determine foreign filing strategies**
 - **Know WHY you need patent protection in other countries**
 - **Know HOW SOON you need protection**
 - **Know WHEN YOU CAN AFFORD the expenses**
- **Some Considerations**
 - **Where products will be sold (channels)**
 - **Where competing products can be made (source - Nip at the bud)**
 - **Technology sharing (OEM, licensing) considerations**
 - **Exit/long-term strategies (e.g., acquisition in a short duration)**
- **Filing the first/ORIGINAL Patent Application**
 - **Provisional: No claims; Unexamined; To perfect priority date;**
Need to file REGULAR/PCT application within
one year of provisional filing date
 - **REGULAR: With claims; Examined**

VII. Securing Patent Protection World-wide (CONTINUED-2)

- **Patent Cooperation Treaty (PCT)**
 - **Entry: As FIRST/ORIGINAL filing OR within ONE YEAR of EARLIEST FILING DATE**
 - **Search (within 18 months) and examination/reply (within 28 months)**
 - **National Stage: Enter within 20 or 30 months from the earliest priority/filing date**
 - **Covers most industrialized countries (European, Japan, USA, India etc.) except Taiwan**
- **Paris Convention**
 - **Entry: Enter national stage within one year of ... (Same as above)**
 - **Covers most ... (same as above)**
- **European Patent Office (EPO)**
 - **Only for some of the European countries (UK, Germany, France)**
 - **Performs a BINDING EXAMINATION on the MEMBER COUNTRIES**
 - **Enter national stage of European Countries using EPO Result**

VII. Securing Patent Protection World-wide (CONTINUED-3)

Patent Application



- **Route {1}**
 - National phase direct
 - Need quick patents in all countries
 - **HIGH COSTS NOT DEFERRED**
 - Very rare (use next approach even if rush)
- **Route {2, 3}**
 - 2: First filing in India
 - 3: Paris Convention Priority
 - High costs deferred up to 1 year
- **Route {2, 4, 5}**
 - 4: PCT filing
 - 5: Enter national phase **AFTER** search report
- **Route {10, 4, 5}**
 - 10: direct PCT Filing
 - Quick US Patent **POTENTIALLY**
- **Route {2, 4, 6, 7}**
 - 6: PCT Phase II (Examination Request)
 - 7: National Phase from PCT Phase II
 - **High COSTS deferred MOST**

VIII. What Can Be Patented: Practical Approach

- **“Everything Under the Sun” can be patented - US Laws**
 - **US sets the pace in many instances**
- **Approach**
 - **HOW YOU ADVANCED YOUR BUSINESS SPACE**
 - **Patent simple stuff, not necessarily just complex ideas**
 - **In technology companies, potentially limited only by budgets**
- **Typical Questions to Ask**
 - **Marketing/sales: Product/Service Differentiation**
 - **Technologist: Why is your product/service cheap/fast
/consumes less power/better**

VIII. What Can Be Patented: Practical Approach (Continued - 1)

- **Define Process for Identifying Patentable Ideas**
 - **Integrate with your business process**
 - **Potentially as soon as the feature is identified**
 - **Conduct product reviews**
 - **ANTICIPATE THE SPACE AND FILE CONCEPT PATENTS**
- **Broad Categories**
 - **Product features**
 - **Architectures**
 - **Circuit Designs**
 - **User interfaces**
 - **Technology Enabled Business Models**
 - **Biotech: Technology based approaches to diagnose diseases**
- **ONLY HYPOTHETICALS IN THE NEXT SLIDES**
 - **NOT PATENTS**

VIII. What Can Be Patented: Practical Approach (Continued - 2)

- **Software is PATENTABLE with proper characterization**
 - **Computer configured to provide specific features/functions patentable**
 - **Focus on the technical aspects enabling a feature**
 - **LIMITED ONLY BY PRIOR ART/OBVIOUSNESS Considerations**
- **Obviousness**
 - **Fairly complex question, but a lot of guidance from case law**
 - **If different from prior art and motivation not in prior art, likely non-obvious**
 - **If solves a long-felt need (but not solved/recognized), likely non-obvious**
- **Hypothetical: Windows**
 - **Assumed Prior art: Text-based user interface, which is not user friendly**
 - **Von Neumann architecture associating an action with an icon display and executing the action when the icon is selected**

VIII. What Can Be Patented: Practical Approach (Continued - 3)

- **Hypothetical: Power-point**
 - **Assumed Prior Art: Competing products did not recognize need to rehearse timings**
 - **Processors which enable slides to be viewed and displays a counter representing the amount of time elapsed**
- **Simplicity does NOT translate to obviousness**
 - **Motivation to modify or combine prior art should be shown of record for obviousness**
- **Hypothetical: Micro-wave Oven with a one-touch button**
 - to increase 'time' by 30 seconds
 - **Assumed Prior art: Need to touch several buttons to start/add time!!**
- **Hypothetical: An option in notebook touch-pad configuration which disables response to tapping while TYPING**
 - **Assumed Prior Art Problem: hand on the pad leads to unintended cursor movements**

VIII. What Can Be Patented: Practical Approach (Continued - 4)

- **Observe industry trends and patent the future advancements**
 - Need to describe ‘how to make and use the invention’
- **Lemelson’s Inventions**
 - **Robotics and MANY MORE**
- **Katz inventions**
 - **Applications (calling cards, ordering flowers, etc.) based on DTMF**
- **Design Choices for backward compatibility**

VIII. What Can Be Patented: Practical Approach (Continued - 5)

- **Patents for Business Methods**

- **State Street Case: Hub and Spoke Mechanism to manage fund inflow-outflow using computers**
- **One way to state US patent office position at one point: A well-known business process does not necessarily render obvious similar process implemented using the web**
- **Possibly more scrutiny under obviousness criteria**

- **Focus on technology in the patent application**

- **Ensure claims directed to infringing activities + desired infringers**

- **User interface claims**
- **Computer Program Product Claims**
- **Medium Claims**

- **Related question - Do I need to patent the business methods**

- **E.g., banks**

VIII. What Can Be Patented: Practical Approach (Continued - 5)

- **New combination of old elements patentable**
 - **Look for a new use/utility from the combination**
- **Old concept in a 'new' area potentially patentable**
 - **Some Relevant Questions: How dissimilar are the two areas?**
 - Is the problem in the new area recognized?**
 - How similar are the problems addressed in the two areas?**
 - **Example: A cache to speed-up a micro-processor may not render obvious the use of a buffer to speed-up accesses to a disk**

IX. General Considerations

- **Patents ONLY PRESUMPTIVELY valid**
 - **In US Laws, burden on the alleged infringer to invalidate the patent**
 - **Transaction cost to invalidate could be high (a barrier)**
- **Hard to design products in IT without infringing patents**
 - **Practically what do we do?**
- **Prior art searches**
 - **Looking at information at least 18 months old**
 - **Business Considerations: Why are we doing this?**

IX. General Considerations (Continued)

- **Policy Considerations**

- **Before: Incentive to sharing your knowledge with the public**
- **Now: Encouragement to THINK & INVEST**
 - = **Control of the knowledge processes**
 - = **AN ESSENTIAL NECESSITY in knowledge-based economy**
- **Not just protection for the big party**
 - = **Big parties have marketing/channels power independently**
 - = **Stack Electronics vs. Microsoft**
- **Huge capital vs. Minimum capital requirements (pharmaceutical vs. IT)**
- **What is best for India?**

- **UNDERSTAND THE GAME AND TAKE ADVANTAGE OF IT!!!**

THANK YOU!!!