Innovations in multi-component products and IT-enabled systems

S Sadagopan, IIIT-B A Round-table on **"Evolving Jurisprudence on Patent Remedies"** NLSUI, Bangalore March 25, 2017

Talk summary

- Patent regime over time
- IT and patenting
- Personal Computers & Smartphones
- Recent developments
- MP3, Sasken case
- Free software, Open source, Crowd-source
- Special cases of cross licensing, patent, publications and prior knowledge
- USA as prime Patent destination for technology products
- Indian IT, need for common dialogue
- Summary

Patent regime over time

- A product had a patent
 - Graham Bell US Patent 174,465 (1876)
 - Thomas Edison US Patent 223, 898 (1880)
- A product has many, many patents
 - Apple iPhone had 200+ patents (Steve Jobs)
- One is six of the active patents impact smartphones (250,000 in 2012; 40,000 patents a year); IBM get the largest number of patents (8,000 in year 2017, with 658 coming from Indian researchers working for IBM)

IT and Patenting

- IT is at the core of many industrial products
 - Office automation Copier, Fax machine
 - Photography / Cinematography
 - Telecom
 - BFSI
 - Medical electronics
 - Other than drugs IT products are the biggest in the patent regime

Personal computers & Smart phones

- For three decades (1981 to 2010) Personal computer as the core innovation platform – office desktop, publishing, banking, PoS, Toll-booth, Schools & Colleges, Libraries,..- offices & homes got completely transformed
- From 2010 smart phone is the core innovation platform – phone, messaging, news, social media, weather, map, shopping, banking, health monitoring, remote control of TV, garage, payment, access control, identity, tele-medicine

Global & Indian examples

- MP3 Layer 3 audio compression scheme from Fraunhofer Institute (Prof Karlheinz Brandenburg) – music over phone wire to efficient storage of high quality music that uses lossy compression, Apple iPod – patent, standard, licensing ecosystem; most successful patent in Europe
- Sasken Starting in 1989, focus on IP-led telecom products, bust & boom thru patents

Free, Open source, Crowd-source

- Alternative models of software licensing
 - Free software (Stallman)
 - Open Source Linux, Apache, Firefox, Wordpress
 - Google, Facebook run on Open source
 - Crowd-sourcing is possible today Wikipedia

Cross licensing and Patent, publications and prior knowledge

- Cross-licensing as way to preserve & protect
- Technology companies do it all the time Intel & NVIDIA (co-opetition)
- Patent & Publishing

USA as prime Patent destination for technology products

- US patenting is very valuable, but expensive
- All Indian IT companies aspire for USA patents
- Google sold Motorola handsets business to Lenovo but kept all patents

Indian IT, need for common dialogue

- Indian IT today
 - 160 Billion (largely exports)
 - 4.55 Million direct jobs (about 20 Million indirect jobs)
 - Mostly IT Services
- Starting to move into products
 - Finacle (16% of global bank accounts)
- Need dialogue among professionals, lawyers, patent attorneys
- Judiciary must get more familiarity
- Together we should sing "yes we can, yes we will" song

Summary

- Knowledge economy needs new ways of working
- Everyone should extend a helping hand and a learning mind
- Caveat
 - Engineers work hard to make lawyers rich!
 - God create a world with no locks!
 - 7 US patents (Rs 25 Lakhs each!)
- Thanks a ton
- Any questions?