GCSIPTC: A Hong Kong Platform for Trading IC-related Intellectual Property (IP) in China

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Outline

- Background information about “GCSIPTC”
  - What is “GCSIPTC”?
  - “GCSIPTC” as an International Collaboration Platform
  - “GCSIPTC” as a Hong Kong university project
- Key issues related to IP trading
  - Proper business model & framework
  - Business considerations
- A Hong Kong platform for SIP trading
- VSIA’s pivotal efforts
- Experience learned
- What’s next?
Background Information about “GCSIPTC”
What is “GCSIPTC”? 

- “GCSIPTC” stands for “Greater China Semiconductor Intellectual Property Trading Center” as an international collaboration platform.
- A MOU (1st one) signed by four parties in October 2003.
  - “Cooperate in facilitating and promoting the proper reuse of SIPs, meeting international recognized standards and business practices”
  - “GCSIPTC can be developed into something similar to a Stock Exchange (or commodity trading center)”
  - “The same business and legal frameworks once established for SIP can be applied to trading any other form of intellectual property (IP)”
  - “GCSIPTC would require sophisticated integration of knowledge of technology, legal system and business environment. In case of Hong Kong, it has a creditable legal framework and a good financial and trading infrastructure to support SIP trading. Therefore, Hong Kong can be a logical place as the test bed to introduce GCSIPTC”
“GCSIPTC” as an Int’l Collaboration

- 08/2002: Initial idea discussed with Mr. CD Tam (CEO) of HKSTP
- 10/2002: 1st 4-party meeting at CASPA Tech. Innovation Conference
  - CASPA (US), HKSTP (HK), CBSIA (BJ), TSOCC (TWN)
- 01/2003: 1st Group meeting of HK team on GCSIPTC
  - HKSTP, CUHK, HKUST & HKU
- 06/2003: 1st submission for HK ITC (gov’t) funding application
- 10/2003: Signing of 1st “GCSIPTC” MOU at BIMS
  - Among CBSIA, HKSTP, TSOCC & CASPA
- 10/2003: Signing of “CSIG” MOU between VSIA and CBSIA at BIMS
- 11/2004: HKITC approved to fund GCSIPTC project
  - HKUST’s Prof. Philip Chan was the program manager
- 02/2005: Chinese researchers joined the GCSIPTC project
  - From ZJU/863/CSIA, HIT/CSIP/CSIA and HFUT
- 08/2005: MOU for CSIA/CSIP to license VSIA’s specs.
  - Among VSIA, CSIA and CSIP
  - Forming of CSIG (China Special Interest Group) of VSIA
- 12/2005: Signing of 2nd GCSIPTC MOU
  - FSA, CBSIA, HKSTP & CASPA
- 01/2006: 1st GCSIPTC Workshop held at HKSTP
- 06/2006: HKSTP inaugurated IP Servicing Centre
- 06/2006: 2nd GCSIPTC Workshop held at HKSTP
- 06/2006: FSA announcement of GCSIPTC MOU
“GCSIPTC” as a HK University Project

A 18-month academic project conducted at HKUST funded by Hong Kong government to look into the technical and legal issues related to Semiconductor IP trading – excluding business issues!

- Program manager: Prof. Philip Chan, Dean of Engng. School

 Participation:

- HKUST as the key investigator & HKSTP as the sponsor
- Industrial supports: CASPA, CBSIA, VSI Alliance, FSA...
- Technical support: Larry Rosenberg (VP, VSIA)
- Legal support: HKIAC, James Hsue (PHDR partner), Novells, J. Zhou
- Mainland researchers from ZJU/863, HIT/CSIP and HFUT
- International liaison: Al Kwok (CASPA PRD Chapter President)

 Status & Result:

- Legal framework has been completed
  - Ref. license agreement, legal due diligence check-list & arbitration process
- Technical framework has been completed
  - Deliverable check-list tied to VSIA’s QIP spec. (for technical due diligence)
- 1st phase (this Project) completed; 2nd phase to be continued?
Proper Business Model and Framework for SIP Trading
IP Trading Platform/Ecosystem

- Participants: sellers, buyers and enabling 3rd parties
  - Value-adding enabling 3rd parties to facilitate win-win outcomes to both IP seller and buyer and reduce risk
    - Instead of win-lose paradigm without the 3rd parties
    - This structure is centered on risk reduction/management
  - Full disclosure (similar to IPO prospectus) to build trust and eliminate costly misunderstanding & misjudgments
    - Fair assessment of the IP value & potential
    - Fair assessment of the risk and liability
    - Fair comparison to similar/competing IPs
    - Implementation issues for the buyer to effectively use the IP
    - Adequate supports from the seller to the buyer to realize the buyer’s ROI – productization of the licensed IP for profit sharing
- All 3rd party enablers must add values in the process from start to finish for the seller and buyer to realize their respective ROI, and collaborate to nurture the ecosystem
  - Legal agents for buyers and licensors, technical assessors, IP protection auditors, escrow agents...
Guiding Principles for the Ecosystem

Sincere win-win proposition between the trading parties
- Full disclosure reduces risk for swift productization of licensed IP

Absolutely no conflict of interest
- Separation of roles for rule setting (overseer), execution (trading participants and enablers) and arbitration (arbiter)
- No mixed roles (in a case) are allowed to avoid conflict of interest

Adequate check and balance
- Proper balance of the interests of trading parties
- 3rd party enablers to check for abilities and monitor the efforts by the trading parties to honor the deal and respective obligations.

Transparency (verification by independent 3rd parties)
- Full disclosure for IP listing (like IPO prospectus) by the IP seller and full disclosure on IP protection capability by the IP buyer
- All steps in the process are auditable with supporting documents by independent auditors and/or the rule setting party.

Must add value at each process step
- All 3rd party enablers must create values to the trading parties and ensure quality outcome of the trading
“3-branches of Government” Structure

- **Separation of power**
  - One oversees & sets rules
  - One conducts business & keeps it going
  - One settles disputes

- **Check and balance**
  - Transparency to monitor accountability
  - No dual role to avoid conflicts of interest – e.g., a referee cannot be a player of a team
  - Independent auditors
Business Considerations for IP Trading
Best Business Practices

- Up-front proper due diligence processes
- Government regulation discovery process
  - E.g., export/import controls and restrictions
- Risk assessment and management
  - Guiding technology transfer w/ proper IP protection
    - E.g., IP hardening for licensee with lesser IP protection capability
    - E.g., Trusted 3rd-party design integrator to handle sensitive IP
  - Good visibility on how the licensed IP will be used
- Technology transfer plan and milestones
  - Proactive problem-solving
  - Lining up 3rd-party enabling supports
- Escrow arrangement(s)
- Control and manage legal costs (through arbitration)
  - Within 10% of the license cost
  - Cap indemnification exposure (up to the license cost!)
Risk Management

Proper risk assessment to guide IP disclosure in accordance to licensee’s IP protection capability

- Thorough up-front risk assessment of licensee’s IP protection capability with an independent 3rd-party audit
- Based on the assessment, the licensor decides with all the necessary & sufficient IP for first-time success of the licensee’s design to what degree item by item licensee can be entrusted – enable vs. entrust!
- A trusted 3rd-party design service provider can serve as the design integrator, entrusted by the licensor to handle highly confidential IP above licensee’s capability to protect, to incorporated the licensed IP into the licensee’s design – as an option
- A foundry partner can serve as an IP protection gatekeeper and royalty payment collector
  - Semi. IP is mostly specific to a set of foundry process & design rules
Technology Transfer

IP transfer is like organ transplant/artificial implant

- Foreign IP will be embedded into the host product like a foreign organ or an artificial device implanted into the recipient's body
- Compatibility is essential to avoid “body rejection”

Necessary proactive due diligence process, planning and execution to ensure success

- Pre-transaction (pre-operation)
  - Functionality (organ or device type), originality (source), quality (health), compatibility (blood type, allergy), etc.
  - The required transfer procedural review (operation planning)
- Transaction (transplant or implant operation)
  - Transfer process and procedure (transplant the organ or implant the device)
- Post-transaction (post-operation) – lasting over 2 years
  - Field data gathering (outpatient monitoring & check-up)
A Hong Kong Platform for SIP Trading
China IC Market Situation

- Domestic market with huge demand
  - Opening to global competitions – by the rules of WTO
  - China became the world’s largest IC market ($40B) in 2005
    - Domestic suppliers can only address 5% of its needs

- State of China’s IC industry
  - Still in its early stage of development
  - Repatriated entrepreneurs are leading the efforts
    - Vimicro, Spreadtrum, MV Silicon, LHWT Micro., HHNEC…
  - IPR infringements is a major issue
    - “Han core” (Shanghai) incident is indicative of systematic problems!
    - Actions (#2 supplier) and SigmaTel are engaging in infringement disputes in both US and China courts

- National efforts (11th 5-year plan) to focus on “Self-determination” & “Innovation”
Factors Driving IP Servicing/Trading

- **Time-to-market**
  - First to market commands great profit
  - Reuse of proven IP speeds up time-to-market

- **Increasing complexity**
  - Few companies have broad expertise
  - Need to acquire IP to handle increasing complexity

- **Customer demands for complete turn-key system-level solutions**
  - Close collaboration along supply-chain partners to provide the customer demanded solutions
    - Sharing/licensing IP will be the way of life
Hong Kong’s Role

- Provide “Common Law” platform for IP transaction
- World recognized arbitration process (HKIAC, www.hkiac.org) with awards enforceable in many (~140) regions, including China & Taiwan
- Easy access to enabling third parties
- Local pool of technical and legal expertise and efficient support services
- Financial and IP Escrow Services
What’s Next?

1\textsuperscript{st} stage: building a \textit{servicing} platform/ecosystem

- Quality assurance: technical certification
- Authentication: legal certification
- IP protection: hardening, tagging, etc.
- ISO-9000 like process for on-going IP protection & creation
- IP pooling administration and agency
- Risk assessment and management of technology transfer

2\textsuperscript{nd} stage: building a \textit{trading} platform/ecosystem

- IP Agents for listing and acquisition
- Escrow agents for fair transaction management
- Auditors/analysts of IP valuation/intellectual asset
- Financial institutions taking IPR as security
- Arbitration proceeding for cost-effective dispute resolution
Thank You Very Much for Your Attention!