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Low cost is not low risk: Realistic IP Protection in China

No secret

- US and EU supply base is concerned about IP loss in China.
- Trade issues, IP protection and Chinese market assess marked US commercial interest in Hu Jintao's April 2006 visit.

China-Britain Business Council is particularly pointed

- *"There is an almost suicidal rush now to transfer research and development operations to China lock, stock and barrel. Financial consultants have advised firms about the tax advantages of relocating R&D to China; you can hire researchers with PhDs very cheaply compared to the more advanced countries. All this raises the risk of loss and abuse of intellectual assets in a country where copycatting and intellectual property piracy have long been a national sport."*

Think asset, not country, in assessing IP risk

- While certain assets are at risk in China, the key is to think "asset" instead of "country."
- Risk cannot be based on countries or "risky areas" but ***wherever a sufficiently valuable asset is accessible at any tier in any country*** - as the collector will move to the least defended point that contains the IP.
- We see collection efforts on the US west coast against electronics assets long before they are transferred to Asia.
- Commercial and dual-use technologies are high on the collection list.
- "Country" is only part of integrated IP protection.

Difficult to omit certain countries

- Unworkable to isolate “risky countries” with respect to IP migration.
- Revenue loss and market share erosion when presence is withheld.
- Host nations demand you be there with competent products and technology in order to do business.
- Three key vulnerability areas in any country:
  - **Pricing model compromise** (supplier outsourcing, subcontracting, etc.)
  - **Data citadel attack** (R&D hives and data warehouses).
  - **Human resources** (HR) churn.

Rising collection levels

- US and EU IP is being harvested at an intense rate by a hierarchy of collectors.
- In the case of China, Chinese firms are being pressured for increased margins while Chinese scientists and researchers are being pressured for national breakthroughs that create native Chinese advances not subject to foreign control and/or royalty payments.
- We believe that there is an assumed feeling of impunity on the part of collectors in the face of feeble or ineffectual responses from targets.

Global IP risk to both domestic and offshore facilities

- Most firms don’t know they’re at risk.
- If they do become aware, they don’t know where to turn for valid assistance.
- Deprived of competent advice, firms employ non-solutions that lull themselves into a false sense of security.
- Firms silently surrender, fearful of negative consequences to business continuity or souring relationships with a host government.
- A firm's management may not confront a threat despite awareness and even presence of internal champions for improved protection.

Changing nature of IP collection and protection

- Intellectual Property (IP) attacks have increasingly shifted to “commercial on commercial” collection.
- Advanced dual use technologies bring military advantage and domestic commercial industrialization.
- Nations do not want IP protection when they are innovating, imbedding surreptitiously acquired IP, or both.
- Nations tend to IP protection when they are in decline:
  - Ebbing of innovation.
  - Emergence of lower cost producers.
  - New producers harvesting their IP, terminating expected revenue streams.

Unique Chinese characteristics

- Japan is now promoting IP protection laws in the face of Korean and Chinese successes in former Japanese core industries.
- China is accelerating the Japanese collection model.
- China is unique among developing nations:
  - “First world” mentality even as it had a “third world” industrial capacity.
  - Closed off industrial penetration and investment that it did not like.
  - Turned benign eye on means by which domestic industries nurtured growth, revenue and industrialization.
- Edicts on IP infractions, or anything else, rarely leave Beijing.
- Actions by provincial, city and enterprise zone mangers tolerated if they bring growth and revenue without headlines.

Unique automotive characteristics

- US and EU automotive OEMs have largely surrendered desirable IP via their joint ventures with Chinese partners.
- Recognition by collectors that much of the state-of-the-art IP is in the Tier One and Two base.
- Toyota/Denso remain a dedicated target by virtue of their retaining hierarchical design and manufacturing knowledge base.

Four tiered model of IP violation

- “Piracy” is an imprecise term in describing the risks and impacts to Intellectual Property (IP):
- **Simple piracy**
  - Copy with no effort to hide piracy - the audio/video model.
- **Substitute product**
  - Pirated/stolen IP used to create a “no name” or “other name” product competing with legitimate offerings, usually on price.
- **“Badged” substitute**
  - Pirated/stolen IP used to create products masquerading as legitimate offerings by legitimate supplier.
- **Supplier substitution**
  - Original legitimate supplier is forced from the market, replaced by copier.

Fiduciary implications

- Firms that do not understand this landscape and industrial progression are ripe for IP harvesting.
- Legal remedies are largely ineffectual and the rewards moot as the IP is already lost and all expected downstream revenue is attenuated.

Defend, defer and deflect

- All technology migrates over time but firms assume risk by default in:
  - Not identifying what is already compromised.
  - Identifying what assets need to be protected.
  - Defining dollars and effort needed to realistically protect those assets - wherever they occur in the supply chain.
- If a collector obtains a critical IP asset, the owner's entire ROI justification collapses along with the expected revenue stream.
- When the IP asset is the core of a system or subsystem that often contains more mature, less competitive technology, the entire system revenue stream truncates.

“Absence of evidence is not evidence of absence”

- We see skilled firms adopting IP protection postures involving amateurish methods and unimplementable good intentions, often buttressed by the erroneous belief that US legal remedies are applicable on a global basis.
- When no legitimate Vulnerability Assessment has been carried out, it is tenuous at best to claim that no penetrations have been made, or that no threats of collection exist.

Inadvertent documenting of ineffective IP protection practices

- PRTM surveyed "global automotive suppliers located in the U.S." for 2006 SAE World, distilling the collective supplier wisdom on attempts at IP protection:
  - *"To protect critical IP, choose components wisely, break up assemblies, select partners carefully and exploit all legal options."*
- Each is ineffective in protecting IP as none offer protection against even modest collection efforts. Even less effective against an Asian style method of collection.
- PRTM validated our assessment that commercial supply bases have no effective protection and whatever attempts that are being made at a 'solution' to IP risk are only lulling the targets into a false sense of security.

PRTM survey
Choose components wisely

- *Only source components which have reached maturity in marketplace*
- *Only source basic components with little "design know-how"*
- *Make IP protection a priority of your make/buy strategy*
- *Or build your own plant in China*

Analysis
Choose components wisely

- Asset market value trends downward from high value to commodity. Value loss can often be mitigated if mature IP is integrated into systems led by high value assets. Difficult to isolate newer assets from the older in the production of integrated systems.
- Damage from IP loss moves progressively up the value chain, to newer and more vital IP as collectors are re-tasked to target and acquire more valuable IP.
- Compromise of high value asset compromises lead asset, maturing and mature components in the system. When there is an IP loss, it is most likely that the discovery will show that the damage to the business is not isolated and broader than anticipated.

Analysis, 2
Choose components wisely

- No “build your own plant” option. Brownfield or Greenfield, owned or leased, someone else erects the building, installs HVAC, electricals, electronics and contracts security function and hires guards.
- Local option delivering protective control is feasible only with a complete IP asset protection program (including asset vulnerability assessments), and significant preparation in selecting and developing local supply chain relationships.

PRTM survey
Break up the puzzle

- *Do not source too many components from one supplier*
- *Piece out assembly to multiple suppliers in different regions - protect integration IP*
- *Avoid giving unnecessary specification & drawing details*

Analysis
Break up the puzzle

- Location-specific IP protection is a partial approach that rarely, if ever, adds much protective value for a global asset.
- Location-specific approaches often creates false sense of comfort on the protective side. Accessibility of the asset to hostile IP collectors at any tier, at any location, is key question.
- Asset-specific protection is global, requiring comprehensive view of asset accessibility in the supply chain.
- Becomes optimally effective on the basis of a complete asset (value chain) exposure assessment to be effective.

PRTM survey
Choose integrity tested partners

- *Check integrity history with current customers.*
- *Choose strategic partner with vested interest in protecting your IP - heavily dependent upon both yours and his business success.*

Analysis
Choose integrity tested partners

- Partnering merely shares risk of IP loss but does not control it.
- Partnering is not controlled and generates additional risk. (Note levels of IP transfer that already occur in any joint venture.)
- Education and a clear delineation of joint interests is usually required, but frequently hard to affect and enforce.
- Customers may not pre-disposed to cooperate with supplier IP protection efforts.

PRTM survey
Invest in legal protection of IP

- *Ensure strong legal contract and non-disclosure agreement… but still proceed with extreme caution.*
- *Use Chinese lawyers to write detailed "contracts" - jointly signed in person.*
- *Prosecute offenders relentlessly.*

Analysis
Invest in legal protection of IP

- Unfortunately, any legal remedies come after the economic damage is done or is underway, i.e., the ROI and revenue loss are unrecoverable.
- Legal remedies are ineffective outside the US, parts of the EU and Australia, and may in fact be damaging to the litigating party.
- Legal strategy may be useful for asset sales or portfolio management (disposition), and will likely be necessary part of US-based due-diligence for Sarbanes Oxley compliance.
- It will have limited deterrent value at best for clandestine IP asset collectors.

Implementable, teachable, effective processes exist

- Prudent, non-adversarial business practices to identify current exposure and to combat collection efforts.
- Beware ineffectual IP protection tools and processes that leave the client without the means to achieve its IP goals.
- Achieve success with strategies drawn from proven Counterterrorism (CT) practices applied to Intellectual Property risk evaluation and remediation.
- Experience shows these processes can be taught and easily embedded as company best practices performed by its employees, not outside consultants.
- Properly done, IP protection becomes a crucial business attribute, like quality, lean manufacturing or robustness.

What does work: Design Basis Threat

- Design Basis Threat (DBT) works regardless of whether the threat is counterterrorism (CT) or Intellectual Property (IP) theft:
  - Asset Value Assessment.
  - Threat/Hazard Assessment.
  - Vulnerability Assessment.
  - Risk Assessment/Risk Management.
- Defines a coherent view of risk tolerance, and a response strategy that interdicts the adversary's preparation, surveillance and collection.
- Beware amateurs using scenario analysis for DBT.
- Scenario-spinning is dangerously omissive, has no end as it has no scope-like business risk statement to bound it.

Required actions for an SEC-regulated IP-dependent client

- What is a corporate SEC-regulated IP-dependent client to do in the age of Sarbanes Oxley?
- Independently build up credible IP protection program:
  - IP-focused exposure or assessment program, especially for IP upon which future revenue depends.
  - Establish IP-driven carve-outs for business critical valuations.
  - Start with knowing what has been compromised; although painful it can staunch an IP hemorrhage and evolve into a tool for allocation of suitably-valued IP protective measures.

How do global firms with broad skill sets get into such a fix?

- Their management consultancies, banks, investment houses and law firms tend to share three characteristics:
  - Actionable IP protection guidelines are absent; in their place are ineffectual guidelines conferring false sense of security among clients.
  - IP is frequently missing among the key characteristics that offshoring clients are urged to address.
  - Fear of reprisal by a host government refusing them business restrains the level of advice offered to clients.

Reasons are diverse

- Realistic IP protection practices, vulnerability assessments and mitigation practices are poorly understood by client and advisor alike.
- Globally distributed services firms frequently show conflicts of focus:
  - Regional revenue targets independent of activities or events elsewhere in its network.
  - Frequently beholden to one or more host governments for its ability to operate within their borders.

Chevron and China's CNOOC vie to acquire Unocal

- Conflict resolution is complex for global service firms:
  - Lehman Brothers (Chevron) made US lobbying campaign that “all but compares China to Russia during the cold war.” Lehman suffered in China.
  - Morgan Stanley (Unocal) advised Unocal's board to reject CNOOC’s higher bid. Morgan suffered in China.
  - Goldman Sachs (independent) represented CNOOC, losing face in miscalculating US protectionist sentiment and Chevron's ability to exploit it.
- If you’re an investor in China and not performing your own independent, rigorous analysis from multiple sources, your tenure will be marked by surprise and cost.

Ernst & Young's withdrawal of 2006 assessment of Chinese NPL exposure

- E&Y withdrew frank May 2006 assessment of Chinese bank non-performing loan (NPL) exposure.
- E&Y estimated total Chinese bank NPL at USD $911 billion, NPL for Big Four state-owned banks at USD$358 billion (three times over official estimate).
- "Frank" was an understatement; the knowledgeable read:
  - US balance of payment debt pays down Chinese bad loans.
  - Chinese banking system is insolvent, and investors may never see their money back, much less a profit.
  - No substantive change has occurred in Chinese lending and banking practice.

Conflict condition of global services firm with regional revenue targets

- E&Y was vying for more Chinese business and was audited one of the Big Four, ICBC, which was shortly to go public.
- E&Y employs 4,500 staff in China, Hong Kong and Macau.
- E&Y withdrew its widely watched NPL report one day after People's Bank of China labeled it “ridiculous.”
- E&Y’s retraction stated that the report “contained errors” requiring retraction of the study in toto.
- Beyond the public shame of retraction, E&Y offered its profuse apology as well as sincere regrets.
- While frank, E&Y’s reporting was similar to that of PricewaterhouseCoopers and McKinsey.

Vulnerability of Big Four accountancies

- Big Four accountancies are now, and will continue to be, sustained targets for Intellectual Property (IP) harvesting by Chinese aspirants.
- Highly profitable, strategic services sector is following the manufacturing and R&D sectors.
- Clients should ask, “What happens to all my data above and beyond the business processes of a Big Four member.”

Use advisors wisely but make IP protection your own

- Chinese perceive finance and accounting as a strategic asset on par with automotive manufacturing.
- Big Four have commenced unofficial, uncontrolled joint ventures (JVs) with the Chinese state:
  - Providing consulting and training at various levels.
  - Seconding staff to bodies such as the finance ministry and the China Securities Regulatory Commission.
- De facto strategic advisory JVs expose virtually anything in the Big Four's inventory without accountability.
- Consider everything they transfer to China, or make accessible in China, as open to compromise.
- IP nightmare will only be perceived after damage is done.

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