Mobile/Wireless Opportunities in China
- What the government initiatives may bring to us?

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About SVCWireless

- Leading high-tech non-profit professional organization
  - Founded in 2000 in Silicon Valley

- Focus on mobile/wireless industry
  - Bridging US and China
  - SIGs
    - Mobile Application
    - Smart Grid
    - Mobile Location Based Services
    - …

- About 4000 members
  - Engineer, Entrepreneur, executive, VC, lawyer etc.

- Events
  - Annual conference
  - Business/technical mixer, seminar
  - Business delegations to and from China

- More information: www.svcwireless.org
China Geographic Map

- Beijing: Capital of China
  - Political
    - Central government, HQ of big SOEs
  - IT: ZhongGuanCun
- Shanghai: Economic center
  - Finance, advanced manufacture
- Hongkong
  - International, finance
- Shenzhen
  - Telecom, IT, finance
- Hangzhou
  - eCommerce (Alibaba), IT, private enterprise
- WuXi
  - Internet-of-Things
  - Electronic manufacturing

Coast line
Developed, dense population, less nature resources

Inner land
Un-developed, sparse/dense population, rich nature resources
China Stimulus Plan

- Nov. 5, 2008: China Stimulus Package announced
  - 4 trillion RMB ($586 billion) investment in 2 years
  - About 13% of 2008 GDP

- Mar. 6, 2009: Package adjusted and details revealed
  - Public infrastructure: Railroad, expressway, power grid modernization
  - Technology advancement
  - Energy and environmental
  - Healthcare and education

- Aggressive matching of local governments
  - Scale of 10+ trillion RMB
China 3G – Telecom Re-org and 3G License

- May 24, 2008: Start China telecom re-organization
  - 6 telecom carriers -> 3 full service carriers (Fixed line & Mobile) + China Satcom

- Jan. 7, 2009: Three 3G licenses issued to the Big 3 after a decades’ waiting
China 3G – Massive Investment in 3G as Part of Stimulus Plan

- 2009 – 2011: 450 billion RMB in 3G deployment
  - Network construction, network equipments, terminals, handsets, 3G application

- In 5 years: 1 trillion RMB of direct & indirect spending
  - 400 billion RMB on 3G terminals by 2011 (Source: RNCOS)

- By the end of 2012
  - 180 – 240 million 3G subscribers

- October 2009
  - 3G users jumped to 9.77 million
  - China telecom: 117,000 base stations established
    - Cover 342 prefecture-level cities, 2,055 county-level cities and counties, and over 6,000 developed towns and villages
China 3G – What could be the opportunities?

- More competition and balanced market

- Mobile Internet era means less control of carriers

- Everyone is looking for the future growth area
  - Mobile broadband?
  - Mobile (application) market?
  - Mobile gaming?
  - Mobile payment?
  - Mobile reading?
  - Mobile social networking?
  - Mobile advertisement?
  - Location based service?
  - ...
Network Convergence

What is “Network Convergence”?
- Technically: Coexistence of telephone, video and data communication within a single network
- Business wise: Application and service convergence of telecommunication network, internet, and cable TV networks

Two separate divisions in the past
- Telecom and internet under MIIT
- Cable TV under SARFT

Jan. 13, 2010: “Network convergence” a decision of China central government
- Breakthrough after ten years of waiting
- Two-way entrance
- Trial projects/cities first
- Regulatory systems might be reformed in the future
Network Convergence – Challenges and Opportunities

- Massive investment on the way
  - Cable TV
    - One-way broadcast to two-way communication
    - Aggregate scattered sources
  - Telecommunication carriers
    - More competition in their traditional domain
    - Need new business areas to ramp up revenue

- Opportunities for China domestic players
  - Internet companies: pplive, ppstream, 迅雷 (XunLei), etc.
  - IPTV solution companies: CNTV, 上海文广 (SMG), 华数 (hzcn) etc.

- US has gone through this already
  - Migrate US experience, solutions and business models to China?
A connected world around us
- 7 trillion wireless devices by 2017 (Dr. Rabaey, UC Berkeley, Vision of the Future, 2008)

China Premier Wen Jiaobo
- Aug. 7, 2009: Speech in Wuxi calling for rapid development of IoT
- Series of interviews afterward
  - "I learned Internet of Things is a network that can be applied to infrastructure and services. The program will have a rosy prospect,"

Internet-of-Things now a strategic industry in China
- Central government package in progress
- Aggressive plans from local governments
Internet-of-Things (IoT): Where are the opportunities

- Complex system
  - Front-end sensing, collecting, and controlling
  - Infrastructural support of internet and mobile internet
  - Backend information processing

- Taking off in vertical markets first
  - Smart grid
  - Smart home/building
  - Intelligent Transportation System (ITS)
  - Healthcare
  - Public safety
  - Logistics
  - …