

Tarantula Mobile Forensics Tool for Chinese Cell Phones

White-box Phones Background Info

- White-box phones are Chinese designed and manufactured phones packed with features and capability, marketed under unbranded or imitation brands. They are typically dual or triple SIM, include media capability and sell for 1/3 to 1/5 the price of the phones they immitate. Known to the Chinese as, “shanzhai.”
- Estimated 600 million phones produced in China in 2010, 200 million consumed in China and 400 million exported, a 50% growth increase from 2009 (Includes white-box and top Chinese manufacturers).
- It is estimated that 20-30% of current subscriber phones worldwide are white-box.
- White-box phones being exported at a rapid rate into emerging markets. The Wall Street Journal notes, “Shipments of ‘white-box,’ or unbranded, cellphones rose sharply in emerging markets as Chinese manufacturers expanded into regions like India and Africa, taking market share from the larger cellphone vendors...” [WSJ November 10, 2010]
- The research firm Gartner says, “For 2010, Gartner now expects overall devices [worldwide] sales to show over 30 percent year-on-year growth fueled by white-box manufacturers.” [Gartner. Competitive Landscape: Mobile Devices, Worldwide, 3Q10]
- White-box phones primarily based on a small amount of chips: Mediatek, Spreadtrum, M-star, and a few others, but with numerous design variations among these chipsets.
- Estimated marketshare of these chips - Mediatek 70%, Spreadtrum 20%, M-star 6%, other 4%.
- Now not only white-box phones using these chips, but top Chinese manufacturers and top worldwide manufacturers as well. Wall Street Journal notes, “Now, MediaTek is aligning with big names in the phone industry to extend its reach. Late last year, it began working with Motorola Inc. to produce seven cellphone models for emerging markets, to be priced at less than \$150, making U.S.-based Motorola one of the first major handset makers to endorse MediaTek’s technology.” [WSJ April 19, 2010]
- These chips are evolving quickly. For example, a new Chinese Android 2.1-based phone, the T3333A is based on Mediatek chip. Chip capability is growing to support smartphones and other more advanced Chinese devices.