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The Waiting Game

Here's a scenario: You're a well-known router manufacturer based in the U.S. Unfortunately, as most in the router business have, you've taken your fair share of knocks over the past couple of years with the failing economy and now you're faced with competition coming out of China. In particular, you suspect one of your low-cost competitors has illegally copied the software in your routers.

Remarkably, you're able to get your hands on one of the routers in question. Your engineers spend six months pulling the router apart and slogging through 15 million lines of code to discover that, yes, your worst fears just might be correct.

Here's what you find: hundreds of "matches" between your software and the software of your Chinese competitor. Not only do you find the stuff that's right with your software, but you find the glitches and misspellings as well. The model numbers of your competitor's routers and yours match, and they've even gone so far as to seemingly disguise copying of commands—saying, for example, "range area," instead of "area range," as you do.

What to do?

You slap that competitor with a lawsuit, alleging it has violated intellectual property (IP) rights that you hold in the U.S. Then, in a change of heart, you decide to suspend your lawsuit for six months because your competitor has agreed to change its technology to honor your patents. And, finally, you hold your breath and hope for the best come April 1.

As you might have guessed, this true story is about the recent clash between San Jose-based Cisco and China-based Huawei Technologies over Huawei's Quidway routers, which appear significantly similar to Cisco's. It's also a perfect example of what's known as *reverse engineering*, one of the many techniques that Chinese electronics manufacturers who are unscrupulous use to disregard IP rights.

At Technology Forecasters Inc.'s latest *Quarterly Forum for Electronics Manufacturing Outsourcing and Supply Chain*, Clive Jones, manager at Economic Data Resources LLC, indicated that other common IP violations in China include trademark violations, overbuilding, patent infringements, counterfeit products and cloning.

Let's take, for example, the problem of counterfeiting. Jones had a long list of companies who have reported counterfeiting of their products in China, among them: Agilent Technology, Dallas Semiconductor, Hewlett Packard, Lucent Technology, Philips and Compaq. Based upon company surveys, Chinese research, U.S. customs, macroeconomic and trade data,

Jones estimated that the street value of counterfeit Chinese electronics products ranges anywhere from \$1 billion to \$10 billion.

In fact, the loss of IP in China is occurring in numerous markets. According to Jones, the International Intellectual Property Alliance (IIPA) reported that the Chinese authorities seized more than 75.8 million VCDs, CDs, CD-ROMs and DVDs in 20,000 raids in 2003. And, as a whole, Asia is estimated to have had over \$4.5 billion in software IP losses alone in 2001, according to data Jones presented.

Lest you think IP ripoffs occur solely in China, Western Europe had an estimated nearly \$3 billion in software IP losses alone in 2001, with North America finishing third with about \$2 billion in software IP losses that same year.

Stealing from others, it seems, is a global problem. China, of course, is getting the brunt of the blame because, even though its IP system meets international standards, it has a distinct lack of consistency and has low penalties. Also, importantly, its IP proceedings are transparent—its rulings are often not available for public review, according to Jones. Actual enforcement of rulings is yet another challenge.

What can you do to protect yourself? Jones offered the following advice: register important patents, trademarks and designs in China; "keep something back"—manufacture at least one piece of an assembly elsewhere than China; micro manage the China shop floor; set up and use component and product tracking technology; redesign products to make copying more difficult; pressure the Chinese government through lobbying organizations; and, finally, if you're an unlucky company who's had products pilfered, try prosecuting in your home country instead of China.

And, as in Cisco's case, sometimes you just have to wait it out and hope for the best.



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