

# EXHIBIT 104

**Subject:** Fwd: New Research: "Pick-Pocket Pop-Ups" & Affiliate Commissions  
**From:** Mattias Stanghed <m@stanghed.com>  
**Date:** Thu, 8 Jul 2004 10:22:14 -0400  
**To:** Murray Alan <alan@direct-revenue.com>

Mr Edelman has some thoughts on the TM's of the world.

.mst

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Begin forwarded message:

**From:** "Ben Edelman" <edelman@law.harvard.edu>  
**Date:** July 8, 2004 10:09:21 EDT  
**To:** m@stanghed.com  
**Subject:** New Research: "Pick-Pocket Pop-Ups" & Affiliate Commissions

Greetings, and thanks for asking for updates on my research. This week's news:

For the last two years, I've been writing (in part) about unwanted programs, installed on users' PCs, that monitor users' online activities and show extra pop-up ads. Today I present research about another problem, quite distinct from pop-ups: Programs that tamper with -- indeed, seize! -- affiliate commissions.

Call the programs stealware, thiefware, or even "pick-pocket pop-ups" (a term recently coined by Kenn Cukier), but their core method is surprisingly simple: Stealware companies join the affiliate networks that merchants operate -- networks intended to pay commissions to independent web sites that recommend the merchants to their visitors. Then when users browse to merchants' sites, the stealware programs jump into action, causing merchants' tracking systems to think users reached the merchants thanks to the stealware programs' efforts.

I've begun my research in this field with a particular program that I believe to be the largest and most prevalent of those that specifically seek to add and replace affiliate commissions: Like Gator and WhenU, Zango (from 180solutions / MetricsDirect) monitors users' activities and sometimes shows popup ads (though 180's ads are particularly large, often covering the entire browser window). But the real news is that Zango frequently sets and replaces affiliate tracking codes -- as to some 300+ major merchants, using at least 47 different affiliate accounts and scores of redirect servers.

Details:

The Effect of 180solutions on Affiliate Commissions and Merchants  
<<http://www.benedelman.org/spyware/180-affiliates>>

Much of Zango's affiliate code replacement lacks any on-screen display. As a result, ordinary users (not to mention merchants' testing staff) are unlikely to notice what's going on. Where possible, I've captured some of

Zango's behavior with screenshots and videos. As to the rest, I've used my trusty network monitor to inspect the raw transmissions passing over my Ethernet wire.

Stealware raises several major policy concerns. For one, merchants risk throwing away money -- paying commission when none are due, increasing their costs, and ultimately raising prices for everyone. For another, legitimate affiliates lose commissions when stealware programs overwrite their tracking codes with stealware programs' own codes. Finally, stealware puts affiliate networks (like LinkShare and Commission Junction) in a truly odd position: If the networks enforce their rules and remove stealware programs from their networks, then the networks shrink and receive smaller payments from merchants.

Ben Edelman

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