Front-Running Study: Testing Report
Benjamin Edelman – June 16, 2009

Summary

In three rounds of tests over a ten-month period, I searched for evidence of front-running by leading domain registration and domain availability-checking sites. More than 600 tests yielded no evidence of current front-running.

Test Procedures

Sites Tested

I formed a list of web sites to be tested based on top organic search results for domain-related search terms (e.g. "register a domain", "check whether a domain is available, "domain availability", and "get a domain name"). I checked whether each site in fact provided a domain search function, and I discarded any site that did not provide such a function. In August 2008 extraction (used for my first two rounds of test), I copied results from Google; in June 2009 extraction (for the third round of tests), I copied results from Microsoft Bing. In each instance, after excluding sites that could not in fact provide a domain search function, I prepared a list of 200 distinct sites to be tested.

Domains Names Checked

In the first round of testing, I formed 100 .COM domain names and 100 .INFO domain names each not registered as of the time of the first round of testing. In the second and third rounds of testing, I formed 100 .COM domains and 100 .NET domains, also each unregistered as of the time of testing. Each domain string was formed in such a way as to be a plausible registration – an English word or combination of words, of reasonable length, of plausible value to an ordinary registrant.

Testing Steps

At each site to be tested, I requested a domain name from the list of available domains. I requested one available domain from each site to be tested, and I preserved my work in a screen-capture video and a packet log. I proceeded through all the test sites in each round of testing, until I had completed the following number of tests.[1]

First round of testing		Second round of testing		Third round of testing	
COM	97	COM	107	COM	100
INFO	100	NET	100	NET	100

Testing was performed within a clean virtual machine on a dedicated clean PC with a fresh operating system installation and no unnecessary add-in software. Tests were performed on a known, trusted network.

After each round of testing, automated systems checked domain availability of each domain, twice per calendar day, for the next seven days. These checks consisted of NSLOOKUP requests, connecting

directly to authoritative names servers for the corresponding TLDs. I preserved the results of all these NSLOOKUP requests.

Test Results

My tests offer no evidence of front-running. Not one of the domains I requested, in any of the three rounds of testing, was registered during the seven-day period during which availability was checked twice each day. Furthermore, at the time of conclusion of the second round of testing, not a single domain from the first round of testing was registered. At the time of conclusion of the third round of testing, not a single domain from the first round of testing was registered. One domain from the second round of testing (performed in September 2008) was ultimately registered in February 2009, but in circumstances that do not suggest squatting (individual registrant, bona fide non-advertising content posted, approximately 5 months between my prior request and the registrant's registration).

My methodology cannot prove that front-running is *not* occurring or that front-running has not occurred in the past. Rather, I have simply failed to find evidence of current front-running via the test scenario I used. It is possible that front-running occurs based on leads from web sites I did not test or based on data sources other than web sites (e.g. NXDOMAIN data from ISPs, navigation requests obtained from client-side software, etc.). It is possible that front-running occurred at some point in the past. I cannot rule out these possibilities via the methodology used in this report.

Use of Assistants

Throughout, "I" includes three assistants who performed administrative tasks under my supervision.

Notes

[1] I had intended to test exactly 100 domains in each TLD in each round. By administrative error, three COMs were omitted from the first round.