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UNITED STATES DISTRICT COURT

CENTRAL DISTRICT OF CALIFORNIA

VERISIGN, INC., a Delaware corporation, Plaintiff, v. INTERNET CORPORATION FOR ASSIGNED NAMES AND NUMBERS, a California corporation; DOES 1-50, Defendants.	Case No. CV 04-1292 AHM (CTx) **DECLARATION OF SCOTT A. HOLLENBECK IN OPPOSITION TO SPECIAL MOTION TO STRIKE OF DEFENDANT INTERNET CORPORATION FOR ASSIGNED NAMES AND NUMBERS** Date: May 17, 2004 Time: 10:00 a.m. Courtroom: 14 – Spring Street Bldg. Hon. A. Howard Matz [Memorandum of Points and Authorities; Evidentiary Objections; Appendix of Exhibits; Declarations; and [Proposed] Order concurrently filed and lodged herewith]

I, SCOTT A. HOLLENBECK, declare:

1. I know all of the following facts of my own personal knowledge and, if called and sworn as a witness, would competently testify thereto.

2. I am the Director of Technology for VeriSign Naming and Directory Services, the business unit of VeriSign, Inc. ("VeriSign") that operates VeriSign's .com registry, and I have been employed with VeriSign and its predecessor operator of the registry, Network Solutions, Inc., since May 1998.

3. As the Director of Technology, I am familiar with the structure, organization, and operation of the VeriSign .com gTLD registry; the technical standards governing the use of wildcards; the operation of the Site Finder service offered by VeriSign; the operation of the wildcard services offered by Internet access and browser providers; and the operation of the wildcard services offered by the registries for other top-level domains. As part of my duties and responsibilities for VeriSign, I also stay generally informed about the contents of publicly posted documents on the Internet discussing Site Finder.

I.   Technical Description of Site Finder

4. When a user inputs a domain name in the address line of his browser (*e.g.,* bokkstore.com), the browser sends the Domain Name System (DNS) query to its locally configured name server or "host." If the domain name contained in the query is in the.com TLD, the name server sends the query to VeriSign's .com DNS zone server to find the Internet Protocol ("IP") number associated with that domain name.

5. As operator of the .com TLD registry, VeriSign's DNS server provides an authoritative response for all queries ending in .com, such as bokkstore.com.

6. VeriSign deployed Site Finder between September 15, 2003 and October 4, 2003. Before Site Finder, if the DNS server were unable to find a domain name

contained in a query (because it did not exist in the.com zone file), the DNS would return a "nonexistent domain" error message. As part of the Site Finder deployment, VeriSign deployed a standards compliant "wildcard" in the .com TLD zone.

7. The "wildcard" allows the DNS zone server to provide a uniform response to queries that include domain names that do not exist in the .com TLD zone (i.e., that do not appear in the list of registered domain names on the .com registry's master list). With wildcards, a zone's authoritative servers produce resource records in response to queries matching wildcard entries in the zone. Therefore, when an authoritative server receives a query for a domain name that does not exist in that zone (*e.g.*, bokkstore.com) and the type of entry matches the type of wildcard entry in the zone (*e.g.*, *.com), the server creates a predictable response for the user.

8. With the deployment of Site Finder, when the .com DNS zone server is unable to find a .com domain name in the zone files (because it does not exist), the deployment of the wildcard allows the DNS zone server to respond with the IP address of the Site Finder servers .

9. This first part of the Site Finder process, the "wildcard" response, operates in total compliance with applicable technical standards, providing a predictable and definitive response, namely the IP address of the Site Finder web site server, instead of a "nonexistent domain" error, in response to queries for nonexistent domain names.

10. In the second part of the Site Finder process, the end user is referred through the wildcard to the Site Finder servers, and if the user application is a web browser, the user receives the Site Finder web page response to the query. This part of the process operates separate and apart from the domain name system used to provide DNS resolution services, and has no effect on the DNS or on the VeriSign registries. This part of the Site Finder process affects only what happens *after* a request *leaves* the DNS.

11. With the Site Finder service, if the user application is a web browser, the user receives a user-friendly help screen that includes not only a clear message that what was entered could not be found, but also such information as: (i) alternative web addresses the user may have been seeking; (ii) a search engine; and (iii) links to contextually popular categories of websites the user can search. Thus, the Site Finder screen provides the user with helpful information and options beyond a simple error message.

12. VeriSign's implementation of Site Finder is more fully described in a white paper which, upon launching Site Finder, VeriSign made available to the public on its website, www.verisign.com. A true and correct copy of the white paper is submitted concurrently as Exhibit 51.

II. Site Finder Complied with All Applicable Internet Protocol Standards

13. Domain Name System wildcards and their deployment have been a standard part of the DNS specification since RFC 1034 was published in 1987.

14. "RFCs" are "Requests for Comments" -- memoranda addressing the various protocols that facilitate the functioning of the Internet. They are written under the auspices of the Internet Engineering Task Force (IETF), the principal body engaged in the development of Internet standard specifications. Site Finder complies with all applicable RFCs, including RFCs 1034, 1035, 2181, 2182, 2308, and 2535.

15. RFC 1034 specifically contemplated a wildcard service, and describes both the format of wildcard resource records as they should appear in zone files and the resolution algorithm to be used when wildcards are encountered.

16. Those specifications, specifically RFC 1034, are incorporated into VeriSign's 2001 .com Registry Agreement. VeriSign's wildcard deployment was fully compliant with RFC 1034.

III. The Registries of Other Top-Level Domains Have Deployed a Wildcard and Implemented or Provided a Web Page Response

17. Not only do the DNS standards anticipate wildcards, but those standards have actually been tested or implemented in other DNS zones. In particular, at least thirteen other registries have deployed a wildcard, including the following top-level domains: .cc, .cn, .cx, .mp, .museum, .nu, .ph, .pw, .td, .tk, .tv, .tw, and .ws. A majority of these provide a Site Finder type web page response.

18. Other registries have tested a wildcard including the following top-level domains: .biz, .us, and .va. .biz and .us also offered a Site Finder type web page response.

19. The registries for several of these TLDs, including .biz, .museum, and .tw all have agreements with ICANN. ICANN has never objected to any of these registries' implementation of a wildcard service, as ICANN did with respect to VeriSign's implementation of Site Finder.

20. For example, in May 2003, Neustar tested a wildcard service in both the .biz and .us (United States) top-level domains. ICANN did not object to Neustar's service.

21. On September 5, 2003, the *Wall Street Journal* reported that the company that performed the May 2003 test with Neustar, Paxfire, Inc., is talking with several other TLD registries about offering similar services. A true and correct copy of this newspaper article is submitted concurrently as Exhibit 52.

22. With respect to .museum, not only did ICANN never object to .museum's implementation of a Site Finder type response, ICANN specifically provided for and permitted such a response in the 2001 .museum registry agreement. A true and correct copy of the pertinent provision from the .museum Registry Agreement (which is publicly available on the Internet at www.icann.org/tlds/agreements/museum) is submitted concurrently as Exhibit 53.

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23. These other registries' Site Finder type response works in a manner technically identical to Site Finder. When a user enters a nonexistent domain name into the .museum TLD, for example (*e.g.*, orlandoart.museum), the .museum page informs that user that the domain name is "not in use" and directs the user to an "index" where the user can view "all names in .museum" and get general information about the .museum TLD.

24. Still other registries are considering launching wildcard services. In August 2003, I was invited by the European National Top-Level Domain Registries ("CENTR") to make a presentation before representatives of that group, in part, because certain members of that organization, who operate European and other country-code TLDs, are interested in implementing Site Finder type responses.

IV. Internet Service Providers Also Provide Similar Services

25. Application developers have always had the ability to query the DNS for the presence of a wildcard in a zone. Once it is known that a wildcard exists in a zone, it is possible to detect wildcard responses to address queries. Any application that is currently not detecting wildcard responses and acting appropriately is doing so as a direct result of design choices made by the developers of the application, not to build the application to comply with applicable standards, specifically RFC 1034.

26. Some Internet service providers, like America Online, and some Internet browsers, like Microsoft's Internet Explorer, were already offering Site Finder type responses at the time Site Finder was launched.

27. The IP number of the Site Finder web page is identifiable. This allows applications to recognize responses from the .com DNS zone server providing the IP number of the Site Finder web page, and gives them an opportunity to process that response.

28. Accordingly, applications that use DNS responses and that were offering Site Finder type responses to queries are able to recognize the Site Finder response and to continue to provide the same services they were providing prior to the Site Finder launch. Both Microsoft and AOL able to do so, as were other ISPs.

29. While these providers designed their services to be triggered by a "nonexistent domain" error, these providers can configure their systems to bypass Site Finder altogether. For example, the Internet Software Consortium (ISC) developed software that translates the Site Finder address into a "nonexistent domain error" message.

V. Site Finder Did Not Impact the Stability of the Internet and DNS

30. The Internet Architecture Board is a committee of the IETF charged with oversight of the Internet standards. I have read the report of the Internet Architecture Board (IAB), *Architectural Concerns on the Use of DNS Wildcards,* dated September 19, 2003, and available at www.iab.org/documents/docs/2003-09-20-dns-wildcards.html, in which the IAB states that VeriSign's deployment of wildcard in the .com TLD zone "was a legitimate use of wildcard records that did not in any way violate the DNS specifications themselves."

31. The introduction and operation of Site Finder did not in any manner compromise the stability, security, or performance of the .com DNS servers on the Domain Name System or the DNS at all.

32. As was the case before the introduction of Site Finder, VeriSign was resolving more than 10 billion DNS queries per day and over 140,000 transactions per second at a 100% availability without any slow down or security risks.

33. Site Finder had no impact on either the registration or resolution of domain names. Responses to all queries received at the .com DNS zone servers continued to

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be unambiguous and accurate, and in full compliance with applicable technical standards.

34. Further, the IAB report found no inherent weaknesses in any components of the Internet's infrastructure, including the DNS, as result of a wildcard deployment. In fact, the introduction and operation of Site Finder did not compromise the stability of the Internet.

VI.   The IAB and SECSAC Reports Concerning Site Finder

35. While the DNS, the Internet, and the connecting pieces of the Internet functioned as normal while Site Finder was deployed, two Internet technical groups prepared reports charging that Site Finder impacted some applications that use an Internet DNS response and that were not built to contemplate a "wildcard" response consistent with the DNS RFCs.

36. In its September 19th report, the IAB addresses what the IAB believes are various possible implications of implementing standards-compliant wildcards in a DNS zone, with particular emphasis on IAB's understanding of VeriSign's wildcard implementation.

37. The IAB found no inherent weaknesses in any components of the Internet's infrastructure, including the DNS or the presence of a wildcard in DNS standards. The IAB also did not find that the introduction of a wildcard within a zone necessarily has any significant adverse effects on the Internet infrastructure.

38. While the IAB commentary did not appear based on data relevant to the subject it was considering, on October 6, 2003, VeriSign submitted a technical response that addressed the IAB's limited application concerns which I helped to prepare.

39. On September 22, 2003, ICANN's Security and Stability Advisory Committee ("SECSAC"), submitted a report to the ICANN Board entitled,

Recommendations Regarding VeriSign's Introduction of Wild Card Response to Uninstantiated Domains within COM and NET ("SECSAC Report"), available at http://www.icann.org/correspondence/secsac-to-board-22sep03.htm.

40. Prior to the publication of the SECSAC report, on September 19, 2003, just four days after Site Finder had been launched, the committee's chairman, Steve Crocker, circulated a draft report that already included the committee's opinions and recommendations but that requested facts to support those opinions and recommendations.

41. SECSAC did not present data to support its claims and conclusions in September 2003, and, as indicated by the absence of a report five months later, has apparently not yet been able to find such evidence.

42. Prior to the issuance of the SECSAC report, SECSAC had declined VeriSign's offer to provide relevant data regarding Site Finder report, and the report was published without the benefit of VeriSign's input. SECSAC and ICANN also cancelled scheduled meetings with VeriSign to discuss Site Finder.

43. The SECSAC's September 22, 2003 report was not produced in a fair, open and transparent manner.

I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct. Executed this 29th day of April, 2004, at Dulles, Virginia.

Scott A. Hollenbeck

SCOTT A. HOLLENBECK

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